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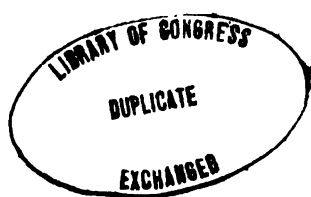
Assembly of the State of New York.

NINETY-SIXTH SESSION--1873.

VOLUME 9.—Nos. 161 to 169 inclusive.



ALBANY:
THE ARGUS COMPANY, PRINTERS.
1873.



STATE OF NEW YORK.

No. 161.

IN ASSEMBLY,

May 21, 1873.

LIST OF GENERAL ORDERS.

G. O.

1347. (Senate.) An act to incorporate the New York Mortgage and Trust Company.
1348. (Senate.) An act to amend an act entitled "An act to incorporate the village of Olean in the county of Cattaraugus, to provide for the election of officers for the same, and to declare the said village a separate road district," passed April 1st, 1858.
1349. An act dividing the State into congressional districts.
1350. (Senate.) An act to authorize marine insurance companies to declare extra dividends in certain cases.
1351. (Senate.) An act supplementary to an act entitled "An act to provide for the incorporation of religious societies," passed April 5, 1813, and the several acts amendatory thereof.
1352. (Senate.) An act further to define the powers and duties of the board of the State commissioners of public charities, and to change the name of the board to the State board of charities.
1353. An act to facilitate the detection and punishment of crime.
1354. An act to regulate the bureau of the public administration in the city of New York.
1355. An act in relation to the powers and duties of county treasurers, and to authorize certain actions and proceedings against them.

G. O.

1356. (Senate.) An act to protect the rights of tenants and owners of leased lands, in leases commonly known as Campbell's leases.
1357. (Senate.) An act to amend an act for the suppression of the traffic in and circulation of obscene literature, being chapter 747 of the Laws of 1872.
1358. An act to fix the compensation of assessors in the town of Westchester, in Westchester county.
1359. An act to amend the act passed May 8, 1856, entitled "An act to authorize the establishment of the House of Refuge for Juvenile Delinquents in Western New York, passed April 7, 1861, and to provide for the payment for the care of such delinquents as have been sentenced to Monroe county penitentiary."
1360. (Senate.) An act to amend an act entitled "An act making provision for the support of certain dispensaries in the city of Brooklyn," passed April 21, 1870.
1361. (Senate.) An act to amend an act passed April 13, 1871, entitled "An act to amend an act passed May 2, 1864, entitled 'An act to amend an act entitled "An act to authorize the formation of corporations for manufacturing, mining, mechanical or chemical purposes,"' passed February 17, 1848."
1362. (Senate.) An act to amend chapter 371 of the Laws of 1866, entitled "An act to extend the operation and effect of the act passed February 17, 1848, entitled 'An act to authorize the formation of corporations for manufacturing, mining, mechanical or chemical purposes,'" passed April 4, 1866.
1363. (Senate.) An act to amend an act entitled "An act to authorise the formation of corporations for manufacturing, mining, mechanical and chemical purposes," passed February 17, 1848.
1364. (Senate.) An act to amend an act entitled "An act to widen and improve Ninth avenue and Fifteenth street in the city of Brooklyn," passed May 7, 1869.
1365. (Senate.) An act to provide for the improvement of Park avenue, from Clinton avenue to Broadway, in the city of Brooklyn, and to repeal an act heretofore passed for the improvement of Park avenue, from Clinton avenue to Broad-

G. O.

way, and from Hudson avenue to Bridge-street, in the city of Brooklyn.

1366. (Senate.) An act to authorize the sale of certain lands belonging to the State.
1367. (Senate.) An act supplemental to act entitled "An act to reorganize the local government of the city of New York," passed April 30, 1873.



STATE OF NEW YORK.

No. 162.

IN ASSEMBLY,

May 22, 1873.

LIST OF GENERAL ORDERS.

G. O.

1368. (Senate.) An act to alter the map or plan of the city of New York by extending Desbrosses street.
1369. (Senate.) An act in relation to a sidewalk from the village of Albion to Albion cemetery.
1370. (Senate.) An act to incorporate the New York Rapid Transit Company, and to provide a comfortable, safe and speedy system of cheap and rapid transit through the city of New York.
1371. (Senate.) An act to authorize the Atlantic Railroad Company of Brooklyn to extend their tracks through Boerum street and other streets in said city.
1372. (Senate.) An act in relation to assessing the cost of sewers in the city of Brooklyn.
1373. An act to prevent certain fraudulent practices.
1374. (Senate.) An act to regulate the bureau of the public administrator in the city of New York.
1375. (Senate.) An act to legalize the official acts of William Phair as commissioner of deeds.
1376. (Senate.) An act authorizing the village of Fort Plain to levy taxes.
1377. Concurrent resolutions proposing an amendment to the Constitution relative to funding the canal and general funding debts now charged on the canals.







STATE OF NEW YORK.

No. 163.

IN ASSEMBLY,

May 22, 1873.

REPORT

OF THE SUB-COMMITTEE OF THE WHOLE.

Mr. Rose, from the sub-committee of the whole, to which was referred the Senate bill No. 978, G. O. 1163, entitled "An act to provide for the support and care of State paupers," reported in favor of the passage of the same with several amendments:

Section 2. Strike out of line 1 the words "board of," "public" and "as constituted," and insert "board" after "State." Strike out lines 2, 3, 4 and 5 down to the word "are," and insert "is." Line 7, strike out "they" and insert "it."

Section 4, line 13, insert "State" before "board," and strike out "State commissioners of public."

Section 5, line 8, same amendment as last. Line 9, strike out "or the secretary thereof."

Section 11, line 5, strike out "said."

Section 12, line 1, insert "State" before "board," and strike out "State board of public."

Section 15, lines 6 and 7, same amendment as last.

The bill was ordered to be reported by the following vote:

Ayes—Messrs. Cook, Watt, Ray, Sylvester, Stewart, Lincoln, Yeomans, Davidson, Babcock—9.

No—Mr. Rose—1.







STATE OF NEW YORK.

No. 164.

IN ASSEMBLY,

May 27, 1873.

OPINION

OF THE ATTORNEY-GENERAL, IN REPLY TO A RESOLUTION OF THE ASSEMBLY, RELATIVE TO THE ISSUE OF FRAUDULENT STOCK BY THE ERIE RAILWAY COMPANY.

STATE OF NEW YORK:

OFFICE OF THE ATTORNEY-GENERAL, }
ALBANY, *March* 29, 1873. }

To the Honorable the Speaker of the Assembly:

SIR.—On March 11th instant, the Assembly passed the following preambles and resolution:

Whereas, It is well known that a large majority of the stock now outstanding against the Erie Railway Company was, by a corrupt collusion of its officers, fraudulently issued, and that there never was twenty per cent on the par value of such stock paid into its treasury, nor expended by it on its property for the public welfare, owing to such corrupt action of its officers; and

Whereas, The original purchasers of said stock did not pay more than the above-named amount for the same, thereby implicating themselves with those who perpetrated the fraud; and

Whereas, It has been made public that the board of directors of that company have declared a dividend on the entire amount of stock outstanding against it, which dividend is limited only in consequence of the earnings of its road, and not in consideration of the manner in which such stock was issued; and

Whereas, The practical effect of allowing dividends to be paid on

such stock would be to recognize and encourage fraud, to paralyze the industries of an innocent people, living tributary to the line of the road that company represents, by imposing additional burdens on them for its use; to levy unjust and oppressive burdens on the commerce of the city of New York, on whose commercial supremacy the welfare of the State so largely depends; to increase the cost of living, by increasing the cost of transporting the necessaries of life between producers and consumers, and, finally, to enrich adventurous gamblers and speculators, as against good morals, the welfare of the people and public policy; and

Whereas, It has been currently reported and charged, in the public prints and elsewhere, that a large and improper expenditure of money was made by the foreign stockholders and officers of the Erie Railway Company in the transfer of the management of that company in the year 1872; and that by a corrupt contract for the negotiation of its bonds, the agents of said foreign stockholders have since been indirectly reimbursed out of the treasury of said company; and that a large sum was used to influence legislation connected with said road in the same year; and that other gross irregularities on the part of said road and its managers were committed: Now, therefore,

Resolved, That the Attorney-General of this State be and is hereby directed to report to this House, within twenty days, whether, in his opinion, the dividend so declared upon the aforesaid fraudulently-issued stock of said company can be legally paid out of its treasury, and whether the said Erie Railway Company may not be restrained by the courts from paying said dividend, or any other dividend, upon any stock thus fraudulently created.

In obedience to the above resolution I have the honor to report as follows:

I understand the "fraudulent issues of stock," therein referred to, to be those made under the following circumstances:

By subdivision ten of section twenty-eight of the general railroad act it is enacted as follows:

"Every railroad corporation shall have power * * * * * from time to time to borrow such sums of money as may be necessary for completing and finishing or operating their railroad, and to issue and dispose of their bonds for any amount so borrowed and to mortgage their corporate property and franchises to secure the payment of any debt contracted by the company for the purposes aforesaid; and the directors of the company may confer on any holder of any bond, issued for money borrowed as aforesaid, the right to convert the principal due or owing thereon into stock of said company, at any time not exceeding ten years from the date of the bond, under such regulations as the directors may see fit to adopt."

Under this section it is charged, and I assume correctly, that large amounts of stock of the Erie Railway Company have been fraudulently issued. That bonds were issued by the Executive Committee of the Board of Directors to one of their own number as a mere means or cover for issuing stock. That the proceeds of such bonds were not applied or intended to be applied to "completing, finishing or operating" said road, but that said bonds were issued with the understanding that the person to whom they were issued should at once convert them into stock and allow for them to the company the value of the stock into which they should be converted. That there was no money borrowed on the bonds, no issuing of them for the purpose of borrowing money, never at any time anything due or owing on them, and never any actual and real owner of said bonds.

Upon such a state of facts there can be no doubt that the transaction and the issuing of the bonds and their conversion into stock was illegal, fraudulent and void.

The statute above quoted contemplates a *bona fide* borrowing of money upon bonds for certain specified purposes, and the element of convertibility into stock was added as a mere means of increasing the value of the bonds.

So far there is no difficulty in the matter, but when you come to the question of a remedy for this wrong there is much embarrassment.

Where such a transaction was contemplated it could no doubt be restrained by injunction at the suit of the proper parties.

And even after the consummation of such a scheme, if any of the stock into which the bonds were converted still remained in the hands of the parties to the fraud, or in the hands of those who took with notice of the fraud, it would no doubt be the duty of the corporation to refuse to pay dividends upon it, and an injunction could be obtained forbidding such payment.

But where the corporation has permitted such stock to be transferred on its books and it has passed into the hands of *bona fide* holders, there are two very grave practical difficulties in the way of refusing to treat it as valid stock.

In order to restrain the payment of dividends upon any particular share of stock it must be proved, first, that it is one of the shares so fraudulently issued or a derivation thereof; and, secondly, that the present holder took it with notice of its vicious origin.

The stock of this company changes hands so frequently and there are such large amounts of it that it may be fairly said to be impossible to identify at this time any particular shares as being derived from the tainted source, and when this was accomplished you would still have to prove that the owner bought it knowing of its corruption. I may here observe that it cannot fairly be said, as suggested in the resolution of your honorable body, that the mere fact of a purchase of the stock at a large discount from the par value is evidence of fraudulent knowledge on the part of the purchaser, or "implicates him with those who perpetrated the fraud." Something more than the payment of less than the par value of the stock would have to be shown to impair the *bona fides* of the holding.

It will be seen that the difficulty is not in the law of the case but in the facts, or rather in the proof of the facts.

Referring to the language of your inquiry I have no difficulty in saying that the company cannot rightfully pay dividends upon such of such fraudulently issued stock as can be identified and traced into the hands of persons who took it with knowledge of the fraud, and that the payment of such dividends can, upon proof of such fact, be restrained by injunction; and I think that such an action could be maintained by the Attorney-General as an action to restrain an improper alienation of the property of the corporation.

But the difficulties of proof above referred to are so great that such a suit would be practically useless.

There is a further question to be considered in this case. It has been argued with great force that the statute allowing the issuing of convertible bonds and the conversion of them into stock does not apply where the authorized capital of the corporation is already full.

All the stock authorized in terms by the charter of this company had been issued long before the fraudulent issues above referred to; and if the views above suggested are correct, the power to convert bonds into stock had ceased, and the stock issued for the bonds was wholly void. It is not necessary, however, to discuss the question here whether the argument that the stock cannot be increased beyond the charter limit is or is not sound, for the reason that, conceding it to be so, the same practical difficulty above referred to remains. In seeking to restrain the payment of dividends on this excess of stock we should, it is true, be relieved from the difficulty of proving that the holder of the stock took it with knowledge that it was a part of

the over-issue, because, it being absolutely beyond the power of the corporation to create it, it would be void even in the hands of a *bona fide* holder; but the difficulty of tracing it and saying that any particular share was part of the over-issue would still remain, and that is, as above stated, practically insuperable.

For the reasons above stated I am of opinion that a suit to restrain the payment of dividends on the stock issued in the manner above described would fail of any practical results, though I shall cheerfully undertake it if directed by the Legislature.

I may here call the attention of your honorable body to the fact that, by act chapter 278 of the Laws of 1868, the issue of the ten millions of stock previously made in the manner above described was in effect legalized, though I understand that large issues have since been made in the same vicious manner.

The preamble to the resolution indicates that your honorable body is impressed with the injury to the public which is supposed to result from the imposing of undue burdens upon the people for the purpose of paying dividends upon this fraudulent and excessive stock. It is, however, evident that the canceling of this excessive stock would not necessarily diminish those burdens. If the stock were diminished one-half, the only result would be that twice the rate of dividend would be paid on half the amount of stock, there being no law limiting the dividends which railroad corporations are allowed to pay to any per centage on the capital stock. The company could and would exact the same rates of fare, and pay increased dividends on the diminished aggregate of stock.

It is, moreover, clear that if stock, held by *bona-fide* purchasers to whom the company has permitted regular transfers of it to be made upon its books, and thus induced them to pay for it to the vendors, should be declared void and canceled because of its being in excess of the chartered limit of capital, the company would, upon the principle settled by the Court of Appeals in the case of the New Haven Railroad Company's over-issued stock, be liable in damages to the last *bona fide* transferees of the stock thus canceled for the value of the stock at the time of the transfer; to pay these damages a debt would have to be created, the interest on which would be about equivalent to the saving of dividends on the canceled stock, so that nothing would be practically gained by the cancellation.

The only remedy for such violations of law, if it can be called a

remedy, is the criminal punishment of the guilty officers of the railroad and the summary proceeding of a forfeiture of the charter; and it is no doubt competent for the Legislature to limit by law the rates of fare and freight, and thus effectually set bounds to the amount of dividends which shall be paid on this stock.

Very respectfully,

FRANCIS O. BARLOW,

Attorney-General.





STATE OF NEW YORK.

No. 165.

IN ASSEMBLY,

May 27, 1873.

REPORT

OF THE SUB-COMMITTEE OF THE WHOLE.

Mr. Rose, from the sub-committee of the whole, to which was referred the Senate bill No. 476, G. O. 1281, entitled "An act to extend the term of office of the Brooklyn park commissioners," reported in favor of the passage of the same without amendment.

The bill was ordered to be reported by the following vote:

Ayes—Messrs. Rose, Oakley, Ray, Herrick, Stewart, Lewis, Lincoln, Yeomans, Davidson—9.

Mr. Rose, from the sub-committee of the whole, to which was referred the Senate bill No. 425, G. O. 1284, entitled "An act to legalize the acts of Thomas H. Horton as a notary public," reported in favor of the passage of the same without amendment.

The bill was ordered to be reported by the following vote:

Ayes—Messrs. Rose, Cook, Oakley, Ray, Herrick, Stewart, Lewis, Lincoln, Yeomans, Davidson—10.

Mr. Rose, from the sub-committee of the whole, to which was referred the Senate bill No. 282, G. O. 1113, entitled "An act to amend section 19 of chapter 570 of the Laws of 1872, entitled 'An act to ascertain by proper proofs the citizens who shall be entitled to the right of suffrage in the State of New York, except in the city and county of New York and the city of Brooklyn,' and to repeal chapter 570 of the Laws of 1871, entitled 'An act to amend an act

entitled "An act in relation to elections in the city and county of New York," "reported to the passage of the same by the following vote :

Ayes—Messrs. Rose, Herrick, Lewis, Lincoln, Yeomans, Davidson—6.

Noes—Messrs. Cook, Oakley, Ray, Stewart—4.

Mr. Rose, from the sub-committee of the whole, to which was referred the Senate bill No. 478, G. O. 1293, entitled "An act to release the interest of the people of the State of New York in certain real estate to Nathaniel Edmonds," reported in favor of the passage of the same without amendment.

The bill was ordered to be reported by the following vote :

Ayes—Messrs. Rose, Cook, Oakley, Ray, Herrick, Stewart, Lewis, Lincoln, Yeomans, Davidson—10.

Mr. Rose, from the sub-committee of the whole, to which was referred the Assembly bill No. 997, G. O. 1160, entitled "An act to amend an act entitled 'An act to incorporate the Inebriates' Home for Kings county,' passed May 9, 1867, and the acts amendatory thereof, passed April 13, 1868, and April 15, 1871," reported in favor of the passage of the same with some amendments.

The bill was ordered to be reported by the following vote :

Ayes—Messrs. Rose, Cook, Oakley, Ray, Herrick, Stewart, Lewis, Lincoln, Yeomans, Davidson—10.





NINETEENTH

ANNUAL REPORT

OF THE

Superintendent of Public Instruction

OF THE

STATE OF NEW YORK.

TRANSMITTED TO THE LEGISLATURE FEBRUARY 28th, 1878.

ALBANY :
THE ARGUS COMPANY, PRINTERS.
1873.

STATE OF NEW YORK.

No. 166.

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IN ASSEMBLY,

February 28, 1873.

NINETEENTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

STATE OF NEW YORK :

DEPARTMENT OF PUBLIC INSTRUCTION, }
SUPERINTENDENT'S OFFICE, }
ALBANY, Feb. 28, 1873. }

Hon. A. B. CORNELL,

Speaker of the Assembly :

SIR.—I herewith transmit to the Legislature the Nineteenth Annual Report of the Superintendent of Public Instruction, and the documents accompanying the same.

Very respectfully, your obedient servant,

ABRAM B. WEAVER,

Superintendent of Public Instruction.

STATE OF NEW YORK.

No. 166.

.

IN ASSEMBLY,

February 28, 1873.

NINETEENTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

STATE OF NEW YORK:

DEPARTMENT OF PUBLIC INSTRUCTION, }
SUPERINTENDENT'S OFFICE, }
ALBANY, *Feb. 28, 1873.* }

Hon. A. B. CORNELL,

Speaker of the Assembly:

SIR.—I herewith transmit to the Legislature the Nineteenth Annual Report of the Superintendent of Public Instruction, and the documents accompanying the same.

Very respectfully, your obedient servant,

ABRAM B. WEAVER,

Superintendent of Public Instruction.



NINETEENTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

STATE OF NEW YORK :

DEPARTMENT OF PUBLIC INSTRUCTION, }
ALBANY, *February 3, 1873.* }

To the Legislature of the State of New York :

The Superintendent of Public Instruction, in obedience to the requirements of law, respectfully submits the following

REPORT.

The returns for the school year ending September 30, 1872, given in this report, are as favorable, in nearly all respects, as those for any preceding year. This indicates a fair measure of prosperity, according to the usual standards, but should not be accepted as conclusive evidence of such great success that efforts for a better condition may prudently cease.

Although statistics may be truthful in reference to the facts reported, and, for some purposes, very serviceable, they cannot reveal the whole life of our school system, nor, without careful study, will they disclose its defects. An account of the large sums of money raised and expended for the support of free schools, of the great number of teachers employed and of scholars taught, if

inconsiderately accepted, might encourage the inference that there is no occasion for further improvement. But those in charge of public instruction should ever keep before their minds the question whether we are doing the proper work in the best way. I shall express my views plainly, in this report, upon some subjects involved in that inquiry, in the treatment of which I think changes for the better may be made, and submit them, with other matter, for the thoughtful consideration of the Legislature.

SCHOOL DISTRICTS AND HOUSES.

The reported number of school districts in the State, exclusive of cities which have no such divisions, was :

In 1871.....	11,350
In 1872.....	11,367
Increase	<u>17</u>

This increase is chiefly owing to the formation of new districts in sparsely settled sections of the State, as required by the increasing population. On the other hand, owing to the consolidation of small districts and the organization of graded schools in cities and villages, there has been, in the aggregate, a diminution of thirty during the last ten years.

The number of school-houses, and their classification according to the materials of which they are constructed, are as follows :

	Log.	Frame.	Brick.	Stone.	Total
Cities .....	....	51	329	10	390
Rural districts	121	9,890	869	473	11,353
Total, 1872.....	121	9,941	1,198	483	11,743
Total, 1871.....	127	9,914	1,182	505	11,728

Their number and classification, as reported for the years 1862 and 1872, are as follows :

Years.	Log.	Frame.	Brick.	Stone.	Total.
1862	228	10,004	964	554	11,750
1872	121	9,941	1,198	483	11,743
Increase .....	.....	.....	234	.....	.....
Decrease	107	63	.....	71	7

The increase in the number of brick school-houses does not represent the full number of new buildings that have been erected during the period mentioned, for many have been constructed in place of old ones of similar materials. The improvements, which have been made in providing suitable houses and sites, are better indicated by their reported value, as compared with preceding years, and the sums expended each year for these and kindred purposes, as stated in the tables which follow.

The value of school-houses and sites in 1865, when it was first reported, and in each of the succeeding years, was as follows :

Years.	Cities.	Rural Districts.	Total.
In 1865	\$5,041,061	\$4,904,862	\$9,945,923
In 1866	6,720,535	5,534,422	12,254,957
In 1867	9,500,085	6,680,511	16,180,596
In 1868	9,599,627	6,859,858	16,459,485
In 1869	10,760,589	7,688,459	18,449,048
In 1870	11,981,302	8,445,110	20,426,412
In 1871	14,606,903	8,861,363	23,468,266
In 1872	15,165,314	9,350,936	24,516,250

The average value of school-houses and sites is :

In the cities	\$38,885 50
In the rural districts	823 65

The average value of school houses and sites in the rural districts was:

In 1865.....	\$433 02
In 1866.....	492 12
In 1867.....	593 92
In 1868.....	604 98
In 1869.....	678 17
In 1870.....	744 34
In 1871.....	780 46
In 1872.....	823 65

The sums spent in each year, since 1862, for school-houses, out-houses, sites, fences, furniture and repairs, were as follows:

Years.	Cities.	Rural Districts.	Total.
1863	\$242,547 53	\$186,961 40	\$429,508 93
1864	370,815 34	276,485 89	647,301 23
1865	516,902 04	282,258 66	799,160 70
1866	489,348 67	480,875 92	970,224 59
1867	1,012,482 87	700,624 14	1,713,107 01
1868	1,168,076 28	1,017,988 67	2,184,064 95
1869	1,401,464 03	1,053,988 98	2,455,453 01
1870	1,079,160 61	891,418 27	1,970,578 88
1871	692,862 79	901,198 14	1,594,060 93
1872	1,110,144 14	878,779 04	1,988,923 18
Totals....	<u>\$8,081,804 30</u>	<u>\$6,670,579 11</u>	<u>\$14,752,383 41</u>

More than ten millions of dollars have been expended for these purposes during the last five years; and the large increase in the reported value of school-houses and sites would indicate that the amount had been chiefly used in permanent improvements.

CHILDREN AND ATTENDANCE.

The whole number of children between the ages of five and twenty-one years, as reported, was:

Years.	Cities.	Rural Districts.	State.
In 1871	645,128	857,556	1,502,684
In 1872	662,778	859,175	1,521,953

The number who attended the public free schools, some portion of the school year, was 1,024,130.

The whole number in attendance, in each of the last ten years, was as follows :

Years.	Cities.	Rural Districts.	Total.
1863	294,211	592,604	886,815
1864	293,265	587,919	881,184
1865	310,556	606,061	916,617
1866	326,798	592,511	919,309
1867	362,288	586,915	949,203
1868	359,229	611,613	970,842
1869	378,861	619,803	998,664
1870	409,477	616,970	1,026,447
1871	411,133	616,977	1,028,110
1872	409,272	614,858	1,024,130

The aggregate number of days of attendance, for each of the last five years, was as follows :

Years.	Cities.	Rural Districts.	Total.
1868	36,047,805	47,349,445	83,397,250
1869	38,125,791	48,952,174	87,077,965
1870	40,907,063	49,896,980	90,304,043
1871	39,096,552	53,511,055	92,607,607
1872	38,479,418	50,234,513	88,713,931

The average daily attendance of pupils, for the same period, was as follows :

Years.	Cities.	Rural Districts.	Total.
1867	164,565	255,392	419,957
1868	166,645	279,223	445,868
1869	178,607	289,814	468,421
1870	192,623	292,082	484,705
1871	195,230	298,418	493,648
1872	199,853	294,997	494,850

The largely increased attendance of pupils upon the public schools, which has hitherto marked the years following the adoption of the Free School Law, has been substantially maintained during the last year.

Though the total number of pupils, reported as having been in attendance during some portion of the year, is somewhat less, the average attendance is more than for any preceding year. According to the foregoing table, the average number of pupils in attendance for the whole State, each day of the entire term in 1872, was 1,202 more than that of the equal term in 1871; 10,145 more than in 1870; 26,429 more than in 1869; 48,982 more than in 1868, and 74,893 more than for the shorter term in 1867.

The average time each pupil in the rural districts attended school was sixteen and nine-tenths weeks; in the cities, nineteen and three-tenths weeks.

The average length of school terms in the cities was forty-one and three-tenths weeks; in the whole State, thirty-five weeks.

The following table shows the average length of time the schools were in session, in the rural districts, for each of the years mentioned:

Years.	Weeks.	Days.
1863	30	1
1864	29	4
1865	30	4
1866	30	2
1867	30	3
1868	32	4
1869	32	4
1870	32	4
1871	32	4
1872	32	4

The number of pupils instructed in the several common schools, normal schools, academies, colleges and private schools, during the year, was as follows :

In the common schools.....	1,024,130
In the normal schools.....	6,377
In the academies	31,421
In the colleges	4,012
In the private schools	131,761
Total	1,197,701

The total number, thus reported as having attended school during the year, is about seventy-nine per cent of all persons in the State between the ages of five and twenty-one years, and much larger than the entire population between the ages of six and seventeen years.

For the information of those interested in comparative educational statistics, the following tables, based upon returns received at this Department, are submitted :

COUNTIES AND CITIES.	1.	2.	3.	4.	5.
	Number of children over 6 and under 21 years of age, for each qualified teacher.	Whole number of children attending school any portion of the year for each qualified teacher.	Average daily attendance per teacher.	Per cent of average daily attendance on whole number of children between 6 and 21 years of age.	Per cent of average daily attendance on whole number of children attending school any portion of the year.
Albany	87	54	24	28.15	45.60
City	195	81	45	23.12	55.23
Cohoes	361	190	43	12.08	38.22
Allegany	50	41	20	32.24	47.95
Broome	47	38	20	41.41	51.48
Binghamton	102	65	37	36.49	57.60
Cattaraugus	51	41	20	40.05	49.80
Cayuga	53	41	20	39.31	50.29
Auburn	109	63	42	37.91	66.19
Chautauqua	53	43	23	42.08	53.63
Chemung	53	41	20	39.11	49.78
Elmira	95	55	40	42.02	73.24
Chenango	41	33	17	40.73	51.63
Clinton	78	51	23	39.65	44.25
Columbia	66	47	21	30.58	44.71
Hudson	155	73	45	33.64	57.10
Cortland	43	35	17	33.14	47.67
Delaware	40	33	16	40.36	48.70
Dutchess	74	46	21	28.89	46.32
Poughkeepsie	143	66	29	30.23	43.69
Eric	77	53	25	33.46	46.59
Buffalo	114	57	30	26.33	52.62
Essex	55	42	20	35.85	46.75
Franklin	61	45	20	32.75	45.08
Fulton	71	50	25	35.96	51.08
Genesee	69	50	25	35.99	49.42
Greene	53	43	20	35.11	47.77
Hamilton	35	27	11	22.48	41.65
Herkimer	58	43	22	38.14	52.04
Jefferson	47	38	19	40.02	49.47
Watertown	90	61	34	37.93	56.32
Kings	163	77	32	19.64	41.81
Brooklyn	154	84	42	27.31	50.26
Lewis	51	37	17	38.53	46.74
Livingston	63	45	23	35.02	48.80
Madison	32	39	20	39.04	51.69
Monroe	80	53	24	30.41	46.03
Rochester	195	88	34	17.64	58.98
Montgomery	87	60	26	30.13	43.97
New York	123	94	45	33.59	47.61
Niagara	73	51	25	33.68	43.13
Lockport	102	79	38	37.32	48.45
Oneida	62	45	22	35.22	49.67
Utica	137	59	33	37.75	64.24
Onondaga	60	46	24	39.73	51.37
Syracuse	95	47	33	35.22	71.60
Ontario	61	46	23	37.27	50.24
Orange	86	59	28	32.07	46.95
Newburgh	121	77	39	29.96	50.84
Orleans	60	47	22	36.63	46.47
Oswego	61	48	24	39.38	49.96
City	116	65	44	37.94	57.47

COUNTIES AND CITIES.	1.	2.	3.	4.	5.
	Number of children over 5 and under 21 years of age, for each qualified teacher.	Whole number of children attending school any portion of the year, for each qualified teacher.	Average daily attendance per teacher.	Per cent of average daily attendance on whole number of children between 5 and 21 years of age.	Per cent of average daily attendance on whole number of children attending school any portion of the year.
Otsego.....	46	35	18	38.80	50.60
Putnam.....	69	49	23	32.64	45.94
Queens.....	137	71	33	23.99	45.97
Long Island City.....	142	101	41	28.83	40.46
Beneseelar.....	85	54	25	29.17	45.87
Troy.....	130	69	39	30.09	57.03
Richmond.....	156	79	37	23.44	46.35
Rockland.....	120	69	32	26.40	45.84
St. Lawrence.....	53	40	20	38.19	50.14
Ogdensburgh.....	151	74	35	22.84	46.97
Saratoga.....	66	46	22	32.51	46.81
Schenectady.....	61	42	20	32.07	46.53
City.....	145	65	41	28.21	63.10
Schoharie.....	52	41	19	36.17	45.95
Schuyler.....	48	40	20	40.81	49.51
Seneca.....	71	54	26	36.78	47.73
Steuben.....	56	44	21	37.08	47.74
Suffolk.....	80	57	28	34.58	48.78
Sullivan.....	68	49	21	31.49	43.28
Tioga.....	54	44	22	40.50	50.23
Tompkins.....	56	41	21	36.57	50.41
Ulster.....	104	68	30	29.46	44.92
Warren.....	60	48	19	31.00	39.25
Washington.....	61	44	22	36.30	49.81
Wayne.....	58	47	23	39.09	49.00
Westchester.....	119	71	32	27.08	45.42
Wyoming.....	51	41	20	39.54	49.16
Yates.....	53	41	19	35.68	45.66
Towns.....	65	46	22	34.31	47.97
Cities.....	138	83	42	30.15	48.83
State.....	84	56	27	32.51	48.31

TEACHERS.

The whole number of teachers employed in the common schools was :

Years.	Males.	Females.	Total.
In 1871.....	6,481	21,773	28,254
In 1872.....	6,670	21,987	28,657

The number reported as "employed at the same time for twenty-eight weeks or more," in each of the last five years, is stated in the following table :

Years.	No. employed in cities.	No. employed in rural districts.	Total.
1868.....	3,998	12,598	16,596
1869.....	4,334	12,806	17,140
1870.....	4,463	12,974	17,437
1871.....	4,752	13,119	17,871
1872.....	4,800	13,256	18,056

The "district quota" is annually determined by dividing the aggregate amount apportioned for that purpose, by the number of teachers simultaneously employed during the previous year, in the several districts, for the prescribed legal term of twenty-eight weeks. Though the aggregate amount has annually increased, the number of teachers from year to year has, in some instances, increased more rapidly, causing a decrease in the amount of the "quota."

The amount paid as a "district quota" was :

In 1868.....	\$47 57
In 1869.....	47 15
In 1870.....	46 09
In 1871.....	47 56
In 1872.....	48 11
In 1873.....	48 19

The following statement shows by whom the teachers employed in the schools were licensed :

	By normal schools.	By Supt. Pub. Inst.	By local officers.	Total.
Cities	270	448	4,480	5,198
Rural districts.....	273	647	22,539	23,459
Total for 1872.....	543	1,095	27,019	28,657
Total for 1871.....	533	1,054	26,667	28,254

The amount expended for teachers' wages was :

Years.	Cities.	Rural Districts.	Total.
In 1867	\$2,217,028 94	\$2,609,442 70	\$4,826,471 64
In 1868	2,564,592 90	3,032,914 04	5,597,506 94
In 1869	2,790,068 90	3,302,111 69	6,092,180 59
In 1870	3,036,439 98	3,460,252 41	6,496,692 39
In 1871	3,066,787 94	3,586,305 11	6,653,093 05
In 1872	3,316,926 27	3,640,529 49	6,957,455 76
Increase over 1871,	\$250,138 33	\$54,224 38	\$304,362 71

The average annual salary for each teacher, calculated from the foregoing statements, was :

Years.	Cities.	Rural Districts.	State.
In 1867.....	\$621 36	\$216 73	\$309 23
In 1868.....	641 47	240 75	387 28
In 1869.....	642 87	257 86	355 02
In 1870.....	680 36	266 70	372 58
In 1871.....	645 37	273 36	372 86
In 1872.....	691 03	274 63	385 33

The average weekly wages was :

Years.	Cities.	Rural Districts.	State.
In 1869.....	\$15 16	\$7 86	\$10 09
In 1870.....	16 12	8 18	10 58
In 1871.....	15 44	8 33	10 58
In 1872.....	16 73	8 37	11 04

The amount paid for teachers' wages was \$2,130,984.12 more than in 1867, which is an advance, in five years, of more than forty-four per cent upon the gross amount, and of more than twenty-two per cent upon the average annual salaries of the increased number of teachers.

The following is a summary of the statistical reports for the year ending September 30, 1872. For a detailed

statement by counties, see table No. 4, in the appendix.

	Cities.	Rural Districts.	Total.
Number of districts.....	694	11,367	12,061
Number of teachers employed at the same time for twenty-eight weeks or more.....	4,800	12,266	18,066
Number of children between 5 and 21 years of age.....	662,778	859,175	1,521,953
Number of male teachers employed.....	402	6,268	6,670
Number of female teachers employed.....	4,796	17,191	21,987
Number of children attending the common schools.....	406,372	614,858	1,024,130
Average daily attendance.....	199,853	294,977	494,830
Number of visitations by school commissioners.....	.....	17,340	17,340
Number of volumes in district libraries.....	132,231	741,962	874,193
Number of log school-houses.....	.....	121	121
Number of frame school-houses.....	51	9,890	9,941
Number of brick school-houses.....	299	869	1,168
Number of stone school-houses.....	10	478	488
Whole number of school-houses.....	390	11,858	11,743

PUBLIC MONIES.

The following table shows the receipts and payments on account of the Common School Fund, during the year:

Receipts.

Balance on hand, September 30, 1871	\$33,495 26
Interest on bonds for lands.....	8,622 90
Interest on bonds for loans.....	8,930 39
Interest on loan of 1840	2,924 46
Interest on State stocks	67,903 27
Interest on Comptroller's bonds.....	2,160 00
Interest on Oswego city bonds	2,996 00
Rent of lands.....	43 50
Dividends on stock of Manhattan Company.....	5,000 00
Interest on money in the treasury	70,022 97
	<hr/>
	\$202,098 75
Amount appropriated from the U. S. Deposit Fund,	165,000 00
	<hr/>
	\$367,098 75

Payments.

Dividends to common schools	\$244,600 00
Salaries of school commissioners	90,187 32
Indian schools	4,481 66
	<hr/>
	\$339,268 98
Balance in treasury, September 30, 1872	27,829 77
	<hr/>
	<u>\$367,098 75</u>

A statement showing the increase and diminution of the fund, and the manner in which its capital has been invested from 1805 to the present time, is given in tables Nos. 6 and 7, in the appendix.

FREE SCHOOL FUND.

The following table shows the receipts and payments, on account of this fund, during the last fiscal year :

Receipts.

Balance on hand, October 1, 1871	\$31,666 18
Avails of State tax received during the year	2,565,672 37
Refunded on account of erroneous payment to the Albany Normal School	20 00
	<hr/>
	<u>\$2,597,358 55</u>

Payments.

Regular apportionment to cities and counties ...	\$2,411,685 35
Supplementary apportionment	2,190 73
Indian schools	3,209 28
Teachers' Institutes	15,069 10
Normal School at Albany	16,000 00
Normal School at Brockport	17,990 33
Normal School at Buffalo	17,115 12
Normal School at Cortland	18,513 81
	<hr/>
Carried forward.	\$2,501,773 72

Brought forward	\$2,501,773 72
Normal School at Fredonia	17,556 10
Normal School at Geneseo	17,996 65
Normal School at Oswego	28,281 39
Normal School at Potsdam	18,881 42
Balance on hand, September 30, 1872	12,869 27
	<hr/>
	\$2,597,358 55
	<hr/>

I respectfully suggest to the Legislature the propriety of amending the law in regard to the Free School Fund, so that the supervision of it by the Superintendent of Public Instruction shall be similar to that exercised by the Comptroller over the General Fund.

Under the existing law, all payments from the Free School Fund are made upon the warrant of the Superintendent, and all receipts for moneys coming into the fund are required to be countersigned by him. His control does not extend further. He has no means of ascertaining whether the money, for which he receipts, is actually placed in the bank to the credit of the fund.

On account of this defect in the law, mistakes have frequently occurred, as the following cases will illustrate: In 1868, moneys due from the treasurers of the counties of Kings and Lewis, on account of the State school tax, amounting to \$20,224.88, were paid by those officers to the State treasurer, and receipts therefor, duly countersigned by me, were given them. But, by a mistake in the Treasurer's office, this sum was deposited in the bank to the credit of the General Fund, and was so credited on the books of the Treasurer and Comptroller. There was no way to rectify the error, except by procuring legisla-

tion authorizing a transfer of the money. Accordingly, the necessary appropriation was made in the supply bill of 1870, and, soon after, the Comptroller drew his warrant for the amount, and a check therefor was drawn by the Treasurer. This check should have been deposited in the bank, to the credit of the Free School Fund, in May, 1870. But it was withheld, and the money was not placed to the credit of the Free School Fund until December, 1871. Thus, more than eighteen months' interest upon this large sum was lost to that fund.

In 1869, the sum of \$7,734.42, due from the treasurer of the county of Richmond for school taxes, and paid by him to the State Treasurer, was in like manner credited to the General Fund. An appropriation was subsequently made for the repayment of this sum from the general fund to the Free School Fund. A warrant for the amount was drawn by the Comptroller, and a check for the same amount was drawn by the State Treasurer. That check should have been deposited to the credit of the Free School Fund, but it never was so deposited. The check was indorsed by the State Treasurer, was presented to the bank, and was paid; but the money never went to the credit of the Free School Fund. Legal proceedings were subsequently instituted, upon the Treasurer's bond, for the recovery of the money, and doubtless it will eventually be placed where it belongs.

I have cited these instances, to show the necessity for an amendment of the law. If the Treasurer was required to make to the Superintendent of Public Instruction a monthly report of the condition of the Free School Fund, and, also, if the Superintendent were furnished with a

duplicate bank book showing the sums placed, day by day, to the credit of the fund, such mistakes and omissions, as those above referred to, would not be likely to occur. The law itself should guard against a misapplication of the public funds.

STATEMENT OF ALL SCHOOL MONEYS RECEIVED AND APPORTIONED.

The school moneys for the fiscal year ending September 30, 1878, are derived from the following sources :

From the Common School Fund.....	\$170,000 00
From the United States Deposit Fund	165,000 00
From the State School Tax	2,448,784 31
	<hr/>
	\$2,783,784 31
	<hr/>

The apportionment has been made, as required by law, as follows :

For salaries of school commissioners	\$91,200 00
For supervision in cities.....	18,500 00
For libraries	55,000 00
For contingent fund (including \$84.99 for separate neighborhoods)	1,797 57
For Indian schools.....	3,172 00
For district quotas.....	871,371 58
For pupil and average attendance quotas.....	1,742,743 16
	<hr/>
	\$2,783,784 31
	<hr/>

The pupil and the average attendance quotas are apportioned to the several counties, and cities having special school acts, according to their population, and are re-apportioned by the school commissioners, in their respective counties, to the several school districts which have maintained school the required term of twenty-eight

weeks during the preceding school year: one-half according to the number of children between five and twenty-one years of age residing in the several districts on the thirtieth day of September next preceding, and one-half according to the average daily attendance at school, as determined by dividing the whole number of days of attendance at school during the year by the whole number of days that school was taught.

It was undoubtedly the original design, in establishing this basis for the distribution of a portion of the public moneys, to encourage attendance at school; but the practical operation of the law tends to defeat that purpose, by rewarding the highest average daily attendance, which is more easily secured for a short term than for a long one. Thus a district maintaining school beyond the required legal term, not only receives no public money on account of such additional time, but incurs the risk of reducing the average daily attendance already attained, and, consequently, its share in the next annual apportionment.

It would be more equitable, and encourage attendance for longer terms, to divide this portion of the fund according to the whole number of days of attendance at school.

The following table is a summary of the financial reports relating to common schools, for the year ending September 30, 1872. For a detailed statement by counties, see appendix, table No. 5.

RECEIPTS.	Cities.	Rural districts.	Totals.
Amount on hand, October 1, 1871.....	\$818,889 09	\$364,749 05	\$1,083,618 14
Apportionment of public moneys.....	1,016,887 98	1,641,978 12	2,658,866 10
Proceeds of gospel and school lands....	44 86	38,452 63	38,497 48
Raised by tax.....	4,840,065 60	2,940,862 73	7,280,928 33
Estimated value of teachers' board.....		235,660 87	235,660 87
From all other sources.....	90,722 21	169,744 62	260,466 83
Totals.....	\$6,266,589 74	\$5,289,448 06	\$11,556,037 80
PAYMENTS.			
For teachers' wages.....	\$3,316,926 27	\$3,640,599 49	\$6,957,455 76
For libraries.....	10,862 13	15,197 87	26,059 50
For school apparatus.....	187,966 06	57,715 36	225,681 44
For colored schools.....	59,835 04	6,690 13	66,525 17
For school-houses, sites, etc.....	1,110,144 14	873,779 04	1,983,923 18
For all other incidental expenses.....	721,950 12	429,350 70	1,151,800 82
Forfeited in hands of supervisors.....		142 13	142 13
Amount on hand, October 1, 1872.....	878,905 96	260,543 84	1,139,449 80
Totals.....	\$6,266,589 74	\$5,289,448 06	\$11,556,037 80

By deducting from the totals, under the head of payments, the sums remaining on hand October 1, 1872, it appears that the actual expense of maintaining the common schools, during the year, was as follows :

In the cities.....	\$5,387,683 78
In the rural districts.....	5,028,904 22
Total.....	\$10,416,588 00
Corresponding total for 1871.....	9,607,903 81
Increase.....	\$808,684 19

The total expenditures for the maintenance of our public schools in each year, from 1850 to the present time, is shown in the following table :

1850.....	\$1,607,684 85
1851.....	1,884,826 16
1852.....	2,249,814 02
1853.....	2,469,248 52
1854.....	2,666,609 36
1855.....	3,544,587 62
1856.....	3,323,049 98
Carried forward...	\$17,745,820 51

Brought forward	\$17,745,820 51
1857	3,792,948 79
1858	* 2,500,000 00
1859	3,664,617 57
1860	3,744,246 95
1861	3,841,270 81
1862	3,955,664 33
1863	3,859,159 21
1864	4,549,870 66
1865	5,735,460 24
1866	6,632,935 94
1867	7,683,201 22
1868	9,040,942 02
1869	9,886,786 29
1870	9,905,514 22
1871	9,607,903 81
1872	10,416,588 00
Total	<u>\$116,562,930 57</u>

The following table shows the entire amount expended during the year for the maintenance of public educational institutions, not including appropriations made to orphan asylums and other public charities in which instruction is given :

For the wages of common school teachers	\$6,957,455 76
For district libraries	26,059 50
For school apparatus	225,681 44
For colored schools	66,525 17
For buildings, sites, furniture, repairs, etc.	1,988,923 18
For other expenses incident to the support of common schools	1,151,800 82
State appropriation for support of academies ..	41,746 50
State appropriation for teachers' classes in academies,	15,080 00
Carried forward	<u>\$10,473,272 37</u>

* Estimated.

Brought forward	\$10,473,272 37
For teachers' institutes	16,190 28
For normal schools	174,339 23
For Cornell University	44,000 00
For Elmira Female College	3,500 00
For Indian schools	7,690 94
For salaries of school commissioners	90,187 32
For Department of Public Instruction	19,620 08
For Regents of the University	6,242 26
For printing reports and school registers	13,958 72
Total	\$10,849,001 20
Corresponding total for 1871	9,880,185 06
Increase	<u>\$968,816 14</u>

DISTRICT LIBRARIES.

The condition of the district library system, and the ruinous tendency of its present management, are fully stated in the former reports from this Department. The reported number of volumes has constantly decreased from 1,604,210, in 1853, to 874,193, in 1872, notwithstanding the annual appropriation of \$55,000 for their support. The decrease for the last year was 54,123. If the system is to be redeemed and made useful, the Legislature must interfere.

In accordance with previous recommendations, and for the purpose of carrying them into effect, I have prepared amendments to the Code of Public Instruction, providing for the repeal of those provisions which permit the use of library moneys for any other purpose than for the purchase of books, and making it the duty of trustees to raise by taxation, in each district respectively, a sum equal to that apportioned to it for library purposes, and

to apply the same exclusively to the purchase of books ; and the duty of supervisors to disburse the library moneys, only upon the written orders of trustees accompanied by their verified statement giving the names and cost of the books purchased or contracted for, and certifying that at least an equal amount has been raised by the district for library purposes within the year.

Amendments in form, embodying these provisions and appropriately designated, will be submitted to the legislature at its present session, and, I trust, meet with favor.

TEACHERS' INSTITUTES.

Fifty-four county institutes were held, during the last calendar year, in as many different counties of the State, besides one for Indian school teachers on the Allegany and Cattaraugus reservation. The aggregate attendance of teachers was eight thousand six hundred and eighty-three, of whom two thousand eight hundred and forty-five were males, and five thousand eight hundred and thirty-eight were females. The average attendance for each county was one hundred and sixty-one.

In St. Lawrence county, a distinct session of the institute was not held, the last year, in view of the establishment of a special training class at the State normal school at Potsdam, to continue ten weeks, commencing with the fall term in September, for the benefit of those proposing to teach during the ensuing season, and the expected attendance of a large number of the teachers from that county where the school is located.

On this account, and the neglect of commissioners in Columbia, Kings and Onondaga counties to organize

institutes, and in some other counties to use proper effort for securing a full attendance, there has been a decrease in the number of teachers reported to have been present at the institutes of the past year. No satisfactory excuse has been rendered by the commissioners of the three counties last named, for neglecting a plain statutory duty to organize an institute in each of their respective counties; and it is a notable coincidence, that both in 1869 and 1872, at the end of which years the terms of office of school commissioners expired, no institutes were held in Columbia and Onondaga counties, and that there was a diminished aggregate attendance for each of those years upon the institutes held in the other counties of the State.

The attendance, though less than in 1871, was seventy-one and four-tenths per cent of the whole number of teachers employed for the full legal term in the counties in which institutes were held.

The average length of time that those in attendance had taught was five and three-tenths terms, or a little more than two and one-half years. Assuming this to be a fair measure of the experience of the entire number of teachers in the public schools of the rural districts of the State, more than five thousand of the 13,256 employed for the full legal term, and more than nine thousand of the 23,459 employed during some portion of the year, were teachers of no previous experience.

Though there has been an increase in salaries, a demand for better qualifications, and a tendency to greater regularity of service, yet these frequent changes

continue to occur, causing large accessions of those who have had no special training for their work.

Institutes held for the short term of two weeks are not expected to supply such thorough instruction and discipline as it is the design of the normal schools to impart, but they render important service in giving general information relating to improved methods of management and teaching, and convey to the great mass of our teachers needed advice and encouragement.

The aggregate cost of maintaining these institutes was \$15,724.48, or \$1.81 for each teacher in attendance. The amount paid during the fiscal year, ending September 30, 1872, for the support of institutes, as given in the financial statement, was \$16,190.28.

Statistical information, in regard to the several institutes held the last calendar year, may be found in table No. 9, in the appendix.

TEACHERS' INSTITUTES.

COMPARATIVE SUMMARY for the ten years ending December 31st, 1872.

YEARS.	Number of coun- ties.	Number of insti- tutes.	Total number of teachers in at- tendance.	Average number of teachers per county.	Average number of teachers per institute.	Per ct. of attend- ance on the whole number of teachers.	Amount paid by State.	Average expense per county.	Average expense per teacher.
1863.....	47	55	9,027	192	164	72.4	\$9,680 26	\$305 96	\$1 07
1864.....	50	54	7,624	150	139	60.7	9,991 62	199 83	1 33
1865.....	54	63	8,867	135	141	73.6	14,916 39	276 22	1 67
1866.....	53	62	8,453	163	136	69.8	15,150 37	291 25	1 79
1867.....	55	66	9,676	176	147	80.3	20,437 39	371 59	2 11
1868.....	56	61	10,377	186	170	82.3	17,823 10	313 43	1 72
1869.....	55	56	9,405	173	170	76.8	18,063 86	328 25	1 90
1870.....	56	57	10,397	186	164	80.8	17,837 23	319 41	1 72
1871.....	57	58	10,413	183	180	80.0	17,177 12	301 36	1 65
1872.....	54	56	8,683	161	168	71.4	15,734 43	291 19	1 81

INDIAN SCHOOLS.

From the reports made to me by the several local superintendents, there appears to be a steady increase in the aggregate and in the average daily attendance at the Indian schools, and that most of them are progressing satisfactorily in other respects.

The teachers' institute held upon the Cattaraugus reservation, in 1871, was so well attended, and awakened such an interest, that I caused another to be organized during the past year. It was held at the Indian court-house near the village of Versailles, for a term of two weeks, commencing July 29th, under the charge of Prof. H. R. Sanford of the Fredonia Normal School. Thirty-one teachers were in attendance, and much good resulted therefrom.

During the calendar year, several changes occurred in the superintendency of the Indian schools, occasioned by the resignations of Mr. Benton of the Allegany and Cattaraugus reservations, and Mr. Raynor of the Shinecock reservation, and by the death of Mr. Cummings, for many years superintendent of the Tonawanda Indian schools. The vacancy first mentioned has been filled by the appointment of Mr. F. E. De Wolf, of Versailles, Cattaraugus county; the others have not yet been supplied.

Late in the fall, steps were taken towards building a new school-house upon the Tonawanda reservation, where one is much needed. The Indians agreed to prepare and deliver the heavy timber, and foundation stone, and to do all the necessary team work. I have promised that the State will bear the other necessary expenses. Work

upon the structure was interrupted by cold weather, but will be resumed in the spring.

The supply bill of 1872 contained two conditional appropriations for building school-houses upon Indian reservations; one, of five hundred dollars, to be paid and expended under the direction of Ex-Governor Seymour and Bishop Huntington, for a school-house upon the Onondaga reservation; and one, of two hundred and fifty dollars, to erect a school-house upon the St. Regis reservation. The first mentioned sum was to be expended "if deemed advisable by the Superintendent of Public Instruction;" and the other "if the same shall be considered necessary by the Superintendent of Public Instruction." In both cases, I have declined to give my consent, and have informed the parties interested that I would take no action in the matter, unless facts were produced showing that an additional school-house was needed. If, in either case, it should be deemed advisable to build, the funds under the control of this Department, applicable to the support of Indian schools, are sufficient to meet the expense without an extra appropriation for that purpose.

There seems to be no question but that, under the operation of the fourteenth amendment to the constitution of the United States, the Indians are entitled to all the privileges and immunities of citizens. The time will come when such of them as reside in civilized communities must perform the duties and bear the burdens of citizenship. The education and training, which the Indian children now receive at the expense of the State, are intended to fit them to become good and useful members

of the body politic. In order, however, that it may produce the contemplated result, the Indians must be taught to help themselves, by being required to bear some measure of responsibility.

I respectfully suggest that all State aid hereafter granted to the Indians for the purposes of education, for building and repairing roads and bridges, and for other improvements, should be coupled with such a requirement.

The usual statistical information respecting Indian schools will be found in table No. 10, and in the reports of the several local superintendents, in the appendix.

The following is a statement of the receipts and payments on account of Indian Schools during the fiscal year:

Receipts.

Balance on hand, October 1, 1871.....	\$4,740 52
Appropriation, chapter 718, Laws of 1871.....	4,000 00
Apportionment from Free School Fund.....	3,147 42
Total	<u>\$11,887 94</u>

Payments.

Allegany and Cattaraugus reservation.....	\$4,875 40
Oneida and Madison reservation.....	441 64
Onondaga reservation.....	332 40
St. Regis reservation.....	532 09
Shinecock reservation	418 50
Tonawanda reservation.....	544 60
Tuscarora reservation	409 66
Education of Indian youth	100 00
General Expenses, not apportioned to reservations. .	36 65
Total Payments.	<u>\$7,690 94</u>
Balance on hand, September 30, 1872	4,197 00
Total	<u>\$11,887 94</u>

THOMAS ASYLUM FOR ORPHAN AND DESTITUTE INDIAN CHILDREN.

The annual report of the trustees of this asylum, containing a detailed statement of the receipts and expenditures for the last fiscal year, may be found in the appendix, (I.)

The receipts are reported to have been \$9,992.35, the full amount of which was expended, leaving unpaid bills at the end of the fiscal year amounting to \$739.20.

Ninety-six pupils were in the asylum at the date of the report.

I respectfully recommend that the usual appropriation be made for the support of this worthy charity.

NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

The following statement shows the number of pupils remaining in this institution at the close of the fiscal year, and to what parties their maintenance is chargeable.

New York State pupils.....	329
New Jersey State pupils.....	33
County pupils.....	131
Paying pupils.....	14
Frizzell fund pupils.....	1
Not provided for.....	1
Total	<u>509</u>

Of these, two hundred and ninety-four are males, and two hundred and fifteen are females. During the past year, good health prevailed among the pupils, and they made satisfactory progress. From personal visitation and inspection, I am satisfied that the institution is faith-

fully performing the work allotted to it, and I recommend, therefore, that the necessary appropriations be made for its support.

Its general management is vested in a board of directors who serve gratuitously, and who deserve much credit for the ability and fidelity with which they have discharged their self imposed duties. The intellectual department remains in charge of Prof. Isaac Lewis Peet, as principal, who is assisted by an experienced corps of teachers.

The board of directors are considering the question of erecting another building somewhere in the rural districts, and of transferring thereto all pupils under twelve years of age. It is believed that such a change would lessen the expense of supporting pupils, and be advantageous in other respects.

It seems proper, while speaking of this institution, to notice the death of the venerable Dr. Harvey P. Peet, who was connected therewith for a period of more than forty-two years, and who, during the greater portion of that time, was its principal. He was, also, for many years president of the board of directors. Under his care and management, the institution grew to be the largest and best managed of its kind in the world. Nearly the whole of his long, active and useful life was devoted to improving and ameliorating the condition of deaf-mutes; and the distinguished success, which attended his efforts, entitles him to a high rank among the philanthropists and educators of our age.

For fuller information respecting the institution, and in relation to the general subject of deaf-mute instruction,

I respectfully refer to the report of the principal, Prof. I. L. Peet, in the appendix, marked (A).

INSTITUTION FOR THE IMPROVED INSTRUCTION OF
DEAF-MUTES.

At the beginning of the last calendar year, the number of pupils under instruction in this institution was sixty-four. During the succeeding nine months, fourteen more were admitted, making the whole number seventy-eight. Within the same period, eleven were discharged, leaving sixty-seven pupils in attendance at the close of the fiscal year, September 30, 1872.

It will be remembered that only the articulative method of instruction is used in this institution, which is the first one of the kind established in this State. Its success has attracted much attention, and has led to the introduction of the same system into several other establishments for the deaf and dumb.

Under the provisions of chapter 180, of the Laws of 1870, the Institution for the Improved Instruction of Deaf-mutes was authorized to receive and instruct State pupils upon the same terms as the Institution for the Deaf and Dumb. Upwards of twenty State pupils have been appointed under the provisions of said act, but no appropriation has, so far, been made for their support. The institution has borne the expense of their maintenance out of its own limited funds, and the State is, therefore, indebted to it in the sum of several thousand dollars; and this obligation cannot honorably be repudiated.

I respectfully recommend that the Legislature make provision, at its present session, for the discharge of this

indebtedness, as well as for the maintenance of State pupils at this institution, for the current and ensuing fiscal years.

NEW YORK INSTITUTION FOR THE BLIND.

The following information respecting this institution is respectfully submitted :

The number of pupils, at the beginning of the year 1872, was one hundred and fifty-six. Thirty-nine were subsequently admitted, and twenty-nine, whose terms had expired, were discharged, leaving one hundred and sixty-six pupils in attendance at the close of the year. Of these, one hundred and forty are New York State pupils.

The sanitary condition of the institution, during the year, was remarkably good. No deaths occurred, and there were no cases of serious sickness.

The general course of instruction remains the same as previously reported. The difficult experiment of instructing female pupils in the operation of the sewing-machine was here first undertaken, and has been attended with marked success. The example has since been followed by a number of institutions in other parts of the United States. Considerable attention has also been devoted to the training of male pupils in the art of tuning pianos, and with much success.

The ingenious system of point-writing and printing devised by Prof. William B. Wait the accomplished principal, and which he has styled the "New York System," was unanimously adopted by the convention of superintendents held at the city of Indianapolis in 1871.

It has since been introduced into all the institutions for the blind in this country, and also, I understand, into some of the European institutions. Mr. Wait deserves great credit for his skill and perseverance in devising and perfecting this system.

STATE CERTIFICATES.

Under existing provisions of law, the Superintendent is authorized, upon the recommendation of school-commissioners, or other satisfactory evidence, to issue State certificates which license the holders thereof to teach any common school in the State. While it is desirable that authority to grant licenses of this character should exist, under proper restrictions, I am of the opinion that the law should be so amended as to render the exercise of the power safer, and more just to the profession at large.

There are very many devoted and successful teachers who are entitled to a permanent footing in their profession, as an inducement to continue therein, and as a recognition of their abilities. But the present plan of granting State certificates only upon recommendation, besides being liable to abuse, operates unfairly, even when conscientiously administered. The way to promotion should be open to all teachers alike; the standard of qualification should be accessible to all, and the advantage and distinction of receiving a State certificate should depend not merely upon success in obtaining recommendations, but upon the higher merit of success in teaching.

The Legislature will be asked to change the law on this subject, so that such certificates may be granted only upon the examination of applicants.

NORMAL SCHOOLS.

The State has eight normal and training schools in full and successful operation. They were but fairly established and opened, when they were assailed by the professed friends of education acting in the interest of private academies. Formerly, when we had at first only one, and, later, two normal schools, they were not molested. However great the contrast may have been between them and other schools, there was practically no competition or conflict. They could not accommodate a sufficient number of students to materially affect teachers' classes in academies.

The first normal school was established, as an experiment, in 1844. For nineteen years it was the only institution of the kind in the State, and was surrounded by a multitude of academies professing to do similar work in training teachers for the common schools. A patient and protracted trial of the two plans through that long period, and a comparison of results, led to the conclusion that normal and training schools, organized and conducted with special reference to the object in view, were the proper institutions to educate teachers for the public schools. Accordingly, provision was made for a second normal school at Oswego, in 1863, and a law was passed in 1866, authorizing and directing the Governor, Lieutenant-Governor, Secretary of State, Comptroller, Attorney-General, Treasurer, and Superintendent of Public Instruction, to act as a commission, on the part of the State, to locate six others. That trust has been fully executed, and the authorized number of schools has been estab-

lished. This was not hasty or inconsiderate action ; it was deliberate, and was based on experiment. The corresponding action of other States, and the management of systems of education in foreign countries, confirm the wisdom and expediency of the course here pursued. It was admitted that our public schools needed teachers possessing more thorough professional training than any other institutions, then existing in this State, afforded.

But when the new normal schools were opened to the public, and their superior advantages were eagerly sought, mutterings of opposition were heard from those interested as officers, stockholders, or otherwise, in the private academies. This feeling of hostility was industriously cultivated, and, enlisting all the elements of opposition it could combine, manifested itself in the Legislature of 1872, by an unsuccessful attempt to defeat the usual appropriations.

There was no real provocation for this assault, except the success of the normal schools. Their excellence and popularity were such as to diminish the attendance at the academies, and, consequently, lessen the profits of the proprietors. That, in their estimation, was grievance enough. The idle assertions, retailed by those selected for that purpose, about a misappropriation of the income of the Common School Fund, was refuted by the simple fact that the normal schools were supported wholly out of the Free School Fund. The accusation of extravagance was unsustained, except by calculations charging the cost of organizing and equipping the schools upon the first few graduates. The complaint about maintaining, at public expense, eight institutions to train teachers for the

common schools, and which were free to students, having the proper qualifications, from all parts of the State, was shown to be insincere on the part of those who used it, by their contemporaneous action in voting a general tax of \$125,000 for the benefit of academies, more than one hundred of which are not public schools, but charge tuition that goes to their proprietors, as will their share of the appropriation, referred to, if paid.

This controversy results from the bad policy of the State, that not only tolerates, but partially supports, two conflicting systems of education. One of them is the free school system, which, by authority of law, and the preference of the people, has already absorbed many of the old academies, and revived them as public schools. The other consists of private academies and seminaries owned and managed by individuals, corporations, or religious denominations. Their proprietors prefer to keep them outside of the free school system, to subserve their own interests ; and ask pecuniary aid from the State, to enable them to compete with the public schools. If all the schools of every grade, which the State to any extent supports, were associated in one homogeneous system, and the appropriations of the State were confined to that system, as heretofore recommended by this Department, and as repeatedly urged by the State Teachers' Association, there would be no ground for conflict.

It is not pretended that professional training of teachers is unnecessary. It is claimed, however, in behalf of the academies, that they are better adapted for such work than the normal schools which are organized for that special purpose. If, in this matter, the State were pur-

suing a new and untried course of uncertain issue, it might be proper to pause before such a pretension. But experiments in this and other States, and the practice of other nations which have successful systems of public instruction, establish a different conclusion, which cannot be reversed by the mere assertion of interested parties. If the first influence of the new normal schools has, among other good effects, already aroused the academies to a determination and promise to do better work than ever before, that influence should be continued.

Instead of considering pretexts for abandoning the normal schools, their condition should be studied for the purpose of improving them. It may be that the course of instruction, ordinarily pursued, could be made simpler and shorter, without diminishing their usefulness; and the expense to students, and to the State, be thereby reduced. As an experiment of this kind, special training classes have been established in several of the schools, during the last year, for the accommodation of those who cannot attend, or who do not need, the full regular course. Perhaps other changes in their organization or management might be made to advantage. But no suggestions of this kind come from their opponents. The existence and success of the normal schools are what trouble them; the abandonment of those schools is what they desire.

Whether eight normal and training schools are needed in this State, which has one and a half millions of children to be instructed, and that constantly employs nearly twenty thousand teachers, may still be a debatable question in the minds of those who prate about higher educa-

tion, which is very desirable in its place, but who have little sympathy for free schools. It has been settled, however, in harmony with the judgment of the world, that they are essential to the improvement of our public schools ; and it becomes the friends of our free school system, while they consider carefully any suggestion made in good faith for the improvement of the normal schools, to reject and repel all propositions tending to their overthrow, especially when dictated by rival interest.

The ordinary annual expense of maintaining all the normal schools is about \$150,000, payable out of the Free School Fund. If this is an injudicious expenditure, it should certainly be stopped. But a fuller statement of the case shows that it is a part of more than ten millions of dollars, annually expended by the people of this State, to maintain a system of public instruction embracing about twelve thousand free schools. Much less than one-third of this aggregate amount is raised by a general tax, and more than two-thirds of it by local taxation voted voluntarily by the inhabitants in the several school districts. Whether it is advisable to expend the sum mentioned, to educate teachers who, although possibly they may never occupy every school-room in the State, will, nevertheless, cover the entire State with their influence, or to expend the whole great amount to pay poor teachers, and to support poor schools, is not debatable with those who believe that the improvement of our common schools is the first duty to the tax-payers who support them, and who use no others.

I commend all our eight State normal schools to liberal and unfaltering support.

Normal School at Albany.

This is the oldest of our State normal schools. Although seven others have lately been established, there has been a steady increase from year to year in the number of its students and of its graduates.

During the year ending September 30th, 1872, forty-seven counties of the State were represented. The aggregate attendance was five hundred and fifteen, and the average daily attendance was two hundred and seventy-five. The average of their ages was nineteen years. Within the two terms ending July 2, 1872, two hundred and twenty-two normal students were admitted. The average time they had previously spent in teaching was a little more than one and a half terms.

The number of graduates, during the year, was eighty-two; and, with scarcely an exception, they have already entered upon the work of teaching. The whole number of graduates, since the school was opened in 1844, is one thousand nine hundred and eighteen, of whom seven hundred and twenty-two are males, and eleven hundred and ninety-six are females. Many of them have become distinguished in their profession, and have done much to elevate the character of instruction in our common schools.

The model and primary departments, maintained for the practice of normal students, are supported by the tuition of pupils attending them. The income from these departments, during the last year, was \$5,014.25, and the cost of their maintenance, for the same period, \$4,000, leaving a balance of \$1,014.25 applicable to the general

purposes of the school. The attendance is limited to a prescribed number, but, because of their acknowledged excellence, patrons have been willing to pay liberally for tuition.

Normal School at Oswego.

During the nine years this school has been in operation, four hundred and eighty-three students have graduated, and many more, who had not fully completed the regular courses of study, are engaged in teaching. The number of graduates, last year, was sixty-six. Of these, thirty-six completed the Elementary English course; twenty-two, the Advanced English course; and eight, the Classical course.

The whole attendance of normal-students was four hundred and twenty; the average daily attendance, two hundred and twelve; and the average of their ages, twenty-one years.

The position of professor of natural science was made vacant by the resignation of Prof. E. A. Strong, at the close of the summer term in July. The vacancy was filled by the appointment of Dr. N. T. True of the State of Maine, who entered upon his duties at the commencement of the fall term in September following. Several other changes have occurred in the faculty, and are named in the accompanying report of the local board.

The school is furnished with a library and apparatus valued at \$9,000; and considerable additions have been made to the collections in natural history, by means of a system of exchanges recently adopted.

The special appropriation of ten thousand dollars for

heating apparatus, made by the Legislature of 1871, and expended for that purpose as mentioned in my last annual report, was not paid until after the commencement of the last fiscal year, and therefore is included in the accompanying financial statement. A primary and a junior department of the public schools of the city are still maintained in the normal school building, for the convenient practice of normal students.

Normal School at Brockport.

The whole attendance of normal students, for the year, was three hundred and twenty nine; the average attendance, two hundred and fourteen; and the average of their ages, a little more than nineteen years. The number of graduates was eighteen, making sixty-five since the establishment of the school. Besides these, nearly seven hundred of the under-graduates have engaged as teachers in the schools of the State.

Additions have been made to the library and apparatus, at a cost of \$882.48, making the total value nearly eleven thousand dollars.

The improvements made to the buildings and grounds, during the last two years, are valued at more than \$10,000. The sum of \$2,775.93 was paid, at the beginning of the last fiscal year, for bills previously incurred for these purposes under the special appropriation of \$5,000 made in 1871.

In 1872, an additional appropriation of \$3,000 was made "for repairs, to be expended by the local board." According to the accompanying report of the board, the sum of \$2,563.34 was drawn on the warrant of the Comp-

troller, and expended during the last year. This special appropriation, like several others to normal schools in that year, was made and expended independently of this Department.

In my annual report to the Legislature in 1870, mention was made of a reduction in the amount appropriated the preceding year, for the support of this school, in consequence of a credit of \$12,000 on the books of the Comptroller, afterward discovered to be erroneous. On account of this deficiency, a special appropriation of \$9,084.50 was made in 1870, which was sufficient for the payment of bills then incurred, but not to meet the current expenses of the school for the remainder of the fiscal year. An appropriation of \$5,169.13 is yet required to make good former deficiencies.

In the academic department, the income from tuition was \$3,237.59, and the amount paid for instruction, \$1,045, leaving a balance of over \$2,000 for the general expenses of the school.

By a clause in the appropriation bill of 1871, the local board, which originally consisted of thirteen members, was reorganized with nine members; and, again, by a similar enactment in 1872, a change was made, increasing the number to eleven, designating in both cases the persons to constitute said board. The general management of the school has been commendable.

Normal School at Fredonia.

The number of normal students in this school has annually increased. Three hundred and five were enrolled the last year, and the average of their ages was but little

less than nineteen years. The average daily attendance was one hundred and seventy-six.

During the year, ten completed the prescribed courses of study and received their diplomas, making the whole number of graduates, since the opening of the school, eighty-six.

The receipts for tuition, in the academic and practicing departments, were \$857.20.

Of the special appropriation of \$5,000 made, in 1871, "for repairs, improving grounds and fencing," the sum of \$1,800 was applied, before the close of the last fiscal year, in partial payment of expenditures made for those purposes.

In my last annual report, the attention of the Legislature was called to the insufficiency of the steam-heating apparatus originally provided, and the necessity of radical improvements in order that the school might not be interrupted. An appropriation of \$3,000 was accordingly granted for this purpose. Early last fall, repairs and additions to the heating apparatus were made, which the contractors guarantee shall be adequate to warm the building.

Normal School at Cortland.

The sum of \$1,000 was appropriated by the Legislature, in 1870, for repairs and for improvements to the normal school grounds; but not having been expended, it was re-appropriated for the same purposes in 1872. The proposed improvements have been made, but the bills therefor were not paid until October last, after the close of the last fiscal year, and therefore are not included in the financial statement.

The cost of the additions to the library and apparatus, referred to in the report of last year, amounted to \$4,623.12, of which the sum of \$4,462.49 has been paid from the special appropriation of \$5,000, made for that purpose in 1871.

Much interest has been awakened in the department of natural history, and many valuable contributions to the various collections have been made by the friends of the school. The reference library is large, and well adapted to the wants of the students.

Since the organization of the school, six hundred and five normal students have been enrolled, of whom seventy-four have graduated, and about four hundred have engaged in teaching. The number of normal students, connected with the school the last year, amounted to three hundred and seventy. The average of their ages was nineteen, and the number of graduates was thirty-four.

The receipts for tuition of non-resident pupils, in the academic and practice schools, was \$371.

Normal School at Potsdam.

The special appropriation of \$3,000 made, in 1871, for fencing the normal school grounds, and expended for that purpose, as mentioned in my last report, was paid after the commencement of the ensuing fiscal year, in October, and is therefore included in the financial statement herewith submitted.

The sum of \$920.01, for insurance of buildings after they were tendered to the State and before they were accepted in its behalf by the Normal School Commis-

sion, was paid in December, 1871, to the building committee by whom the indebtedness was incurred, and is included in the financial table of receipts and payments.

The sum of \$600 was appropriated, in 1872, for supplying the building with water, but no bills therefor have yet been presented.

The receipts for tuition in the academic department amounted to \$2,139.60.

Three hundred and sixty-three normal students were registered during the last year. The average of their ages was over nineteen years; and the number of graduates was fifteen.

A temporary training class, for the special benefit of persons intending to teach the ensuing season, was organized at the commencement of the fall term on the fourth day of September, and was maintained for a period of ten weeks with an attendance of fifty five teachers. The plan was also adopted in the normal schools at Buffalo, Cortland, Fredonia, Geneseo and Oswego; and the results have already justified the experiment, and give encouragement that it may be made a means of much practical benefit.

Normal School at Buffalo.

This school was opened but three weeks before the commencement of the last school and fiscal year for which report is made. The number of normal pupils, for the year, was one hundred and seventy-one; the average attendance, eighty; and the average of their ages, over eighteen. The present year shows a large increase, the average attendance for the first term being one hundred

and forty-one. The advancement of pupils has been commendable, and it is expected that from twenty to twenty-five of those now in attendance will be prepared to graduate at the close of the next summer term.

By the bequest of the late Jesse Ketchum, who donated the spacious lot upon which the normal-school building is located, a memorial fund of ten thousand dollars has been established for the benefit of the common schools of Buffalo, the income to be expended for medals to be distributed as prizes for meritorious conduct and attainments in learning. Two gold medals, one of the first class, valued at forty dollars, and one of the second class, valued at twenty dollars, have been assigned to the normal school, and will be first awarded by the local board to members of classes graduating in June next, on the basis of scholarship, deportment, and skill in teaching.

The sum of \$6,000 was appropriated by the Legislature of 1872, to be expended by the local board in repairs and improvements of the normal school building. The annual report of the board states that the sum of \$4,461.07 was drawn on the warrant of the Comptroller for these purposes.

The sum of \$1,615.22 has been expended during the year for books and apparatus.

The amount received from tuition was two hundred and forty dollars.

Normal School at Geneseo.

This school has been in operation but little more than one year. The attendance of normal students, which was seventy-one at the opening, amounting to one hundred

and ninety-one during the year ending September 30, 1872, with an average attendance for that period, of ninety-seven. The average of their ages was nineteen. Ten of the number were sufficiently advanced in their studies to graduate the first year, and all of them, beside others who attended for a special term, are now engaged in teaching in the schools of this State.

The library of text-books, and the chemical and philosophical apparatus, are adequate to the wants of the school. During the year, additions were made at a cost of \$598.96 ; and the total value is now about \$6,000.

The Legislature of 1872 made a special appropriation of \$3,000, for this school, "to be paid and expended by the local board for repairing and replacing the heating apparatus." This is another instance in which an appropriation was made, to be expended by the local board independently of this Department ; and I can only state that the board report that \$1,500 of this amount was received from the State Treasurer, and that, out of it, the sum of \$183.07 was expended before the close of the fiscal year, on the thirtieth day of September last.

The receipts for tuition, in the academic and practicing departments, amounted to \$1,919.85 ; of which the sum of \$755.38 was expended for repairs, \$146.26 for apparatus, and \$360 for instruction, leaving in the hands of the local board, from these two sources named, an unexpended balance of \$1,975.14.

TABLES, showing in a condensed form the prominent facts relating to the organization and management of the respective schools, with a statement of the receipts and expenditures for the last year.

TABLE No. 1.—NORMAL SCHOOLS.

LOCATION AND NAME.	When established.	When opened.	Value of lot and building.	Value of furniture.	Value of library and apparatus.	Total value of lot, buildings and apparatus.	WHOLE NUMBER OF GRADUATES SINCE SCHOOL WAS OPENED.		
							Male.	Female.	Total.
Albany—State Normal School....	1844	1844	\$75,000 00	\$3,000 00	\$6,000 00	\$84,000 00	722	1,196	1,918
Brockport—Normal and Training School	1866	1867	125,000 00	6,000 00	10,750 00	141,750 00	21	43	64
Buffalo—Normal and Training School	1867	1871	115,000 00	5,000 00	4,300 00	124,300 00	....	....	....
Cortland—Normal and Training School	1866	1869	90,500 00	6,500 00	6,650 00	103,650 00	11	63	74
Fredonia—Normal and Training School	1866	1867	97,000 00	4,250 00	6,500 00	107,750 00	2	84	86
Geneseo—Normal and Training School	1867	1871	83,000 00	3,400 00	5,950 00	91,350 00	4	6	10
Oswego—Normal and Training School	1868	1868	70,000 00	5,500 00	9,000 00	84,500 00	43	440	483
Potsdam—Normal and Training School	1866	1869	84,818 00	3,998 00	5,340 00	94,156 00	1	21	22

TABLE NO. 2.—NORMAL SCHOOLS.

(Abstract of Reports from Local Boards for the year ending September 30, 1872.)

LOCATION.	DEPARTMENTS.	SCHOOL STATISTICS.						MONEY RECEIVED.				
		Whole number of pupils during the year.	Average number in attendance.	Average age.		Number of graduates.		Balance on hand Oct. 1st, 1871.	Received from State.	Received from tuition.	Received from other sources.	Total receipts.
				Male.	Female.	Male.	Female.					
Albany	Normal	517	275	19.7	18.5	23	59	.....	\$16,000 00	.....	.....	.....
	Model	130	103	.....	.....	.....	.....	.....	.....	\$3,630 00	.....	.....
	Primary	53	50	.....	.....	.....	.....	.....	.....	1,164 25	.....	.....
	Total	699	427	.....	.....	.....	.....	\$2,132 45	\$16,000 00	\$5,014 25	\$49 20	\$22,195 90
Brockport	Normal	329	214	19.0	19.5	8	12	.....	\$17,990 83	.....	*\$5,337 26	.....
	Academic	299	108	.....	.....	.....	.....	.....	.....	\$3,237 59	.....	.....
	Intermediate	188	108	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Primary	210	133	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total	1,016	563	.....	.....	.....	.....	\$1,239 07	\$17,990 83	\$3,237 59	*\$5,337 26	\$27,534 25
Buffalo	Normal	171	80	18.6	17.9	.....	.....	.....	\$17,115 12	.....	*\$4,461 07	.....
	Academic or College	9	5	.....	.....	.....	.....	.....	.....	\$340 00	+137 66	.....
	Practice	213	180	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total	393	265	.....	.....	.....	.....	.....	\$17,115 12	\$340 00	\$4,598 73	\$21,953 85
Cortland	Normal	370	161	19.0	19.0	4	34	.....	\$18,513 81	.....	*\$4,463 49	.....
	Academic	61	23	.....	.....	.....	.....	.....	.....	\$133 50	.....	.....
	Intermediate	205	113	.....	.....	.....	.....	.....	.....	187 50	10 00	.....
	Primary	281	173	.....	.....	.....	.....	.....	.....	50 00	.....	.....
	Total	917	468	.....	.....	.....	.....	\$1,334 83	\$18,513 81	\$371 00	\$4,473 49	\$24,361 93

School	Normal Academic.....	Senior Junior and Primary.	Total.....
Fredonia	305 146 214 295	176 189 214 281	\$1,800 00
Geneseo	191 187 151 188	681 87 88 98	\$1,800 00
Oswego	420 304 249	393 212 166 188	\$10,000 00
Potsdam	363 308 136 146	180 87 117 118	\$1,800 00
Total	946	497	\$24,910 86

† Includes \$920.01 paid to building committee.

† Over-draft on treasurer of local board.

Special appropriation.

TABLE NO. 2 — NORMAL SCHOOLS — (Continued).

(Abstract of Reports from Local Boards for the year ending September 30, 1873.)

LOCATION.	DEPARTMENTS.	MONEYS PAID.						Balance in hands of local board Oct. 1, 1873.	Total.
		Paid for instruction.	Paid for library, text-books and apparatus.	Paid for repairs and improvements on buildings and grounds.	Paid for all other expenses.	Total expenses.			
Albany	Normal	\$12,200 00	\$1,094 78	\$927 36	\$3,554 48	\$18,776 62	.....	.....
	Model	2,800 00	.....	.....	.....	2,800 00	.....	.....
	Primary	1,200 00	.....	.....	.....	1,200 00	.....	.....
	Total	\$17,200 00	\$1,094 78	\$927 36	\$3,554 48	\$22,776 62	\$419 28	\$23,195 90	
Brockport	Normal	\$15,157 50	\$889 48	\$6,715 57	\$3,194 49	\$25,950 04	\$233 74	.....
	Academic	1,045 00	.....	.....	.....	1,045 00	586 47	.....
	Intermediate	.....	.....	.....	.....	.....	.....	.....
	Primary	.....	.....	.....	.....	.....	.....	.....
Buffalo	Total	\$16,302 50	\$889 48	\$6,715 57	\$3,194 49	\$26,996 04	\$889 21	\$27,884 25	
	Normal	\$12,600 00	\$1,615 43	\$3,944 57	\$4,588 74	\$21,748 74	.....	.....
	Junior	150 00	.....	.....	.....	150 00	.....	.....
	Primary	.....	.....	.....	.....	.....	.....	.....
Cortland	Total	\$12,750 00	\$1,615 43	\$3,944 57	\$4,588 74	\$21,898 74	\$55 11	\$21,953 85	
	Normal	\$10,800 00	\$4,623 13	\$143 98	\$4,009 25	\$19,576 30	.....	.....
	Academic	800 00	.....	.....	.....	800 00	.....	.....
	Intermediate	1,400 00	.....	.....	.....	1,400 00	.....	.....
Total	Primary	1,200 00	.....	.....	.....	1,200 00	.....	.....
	Total	\$14,200 00	\$4,623 13	\$143 98	\$4,009 25	\$22,976 30	\$1,715 68	\$24,691 98	

Fredonia.....	Normal.....	\$113 96	\$3,116 36	\$4,538 10	\$32,463 81	.....	.....
	Academic.....	.....	.....	.....	.....	.....	.....
	Intermediate.....	.....	.....	.....	.....	.....	.....
	Primary.....	.....	.....	.....	.....	.....	.....
	Total.....	\$113 96	\$3,116 36	\$4,538 10	\$32,463 81	\$487 91	\$32,850 82
Geneseo.....	Normal.....	\$598 96	\$4,873 03	\$3,959 37	\$16,881 36	.....	.....
	Academic.....	.....	.....	.....	860 00	.....	.....
	Intermediate.....	.....	.....	.....	1,100 00	.....	.....
	Primary.....	.....	.....	.....	1,100 00	.....	.....
	Total.....	\$598 96	\$3,873 03	\$3,959 37	\$19,441 36	\$1,975 14	\$31,416 50
Oswego.....	Normal.....	\$325 06	\$10,000 00	\$5,538 31	\$28,281 39	.....	.....
	Junior.....	.....	.....	.....	.....	.....	.....
	Primary.....	.....	.....	.....	.....	.....	.....
	Total.....	\$325 06	\$10,000 00	\$5,538 31	\$28,281 39	.....	\$28,281 39
Potsdam.....	Normal.....	\$64 25	\$3,250 00	* \$7,655 11	\$30,810 86	.....	.....
	Academic.....	.....	.....	.....	1,400 00	.....	.....
	Intermediate.....	.....	.....	.....	1,400 00	.....	.....
	Primary.....	.....	.....	.....	1,300 00	.....	.....
	Total.....	\$64 25	\$3,250 00	\$7,655 11	\$34,910 86	.....	\$34,910 86

* Includes \$990.01 paid to building Committee.

EDUCATIONAL MEETINGS.

The State Association of School Commissioners and City Superintendents met at the court-house in Rochester, on Tuesday, the 21st day of May last, and continued in session three days. Many leading educators, besides school officers, from different parts of the State, were present. In respect to the character and scope of the subjects presented, the well-considered and practical suggestions brought out in the discussions, and the earnest and thoughtful interest in the exercises manifested by all in attendance, this meeting was probably unsurpassed by any of its kind ever held in the State, and cannot fail to produce beneficial results in those sections which were so fortunate as to be there represented.

It was decided to hold the next convention at Saratoga Springs, May 20, 1873.

The State Teachers' Association held its twenty-seventh anniversary at Saratoga Springs, during the three days commencing July 23, 1872. The arrangements made by the local committee for the meeting, and for the entertainment of members, have rarely been equalled, and the attendance of many from our own and other States, who have become eminent in various departments of educational labor, gave character and interest to the proceedings.

The next meeting of the association will be held at Utica, commencing July 22d, 1873.

TEACHERS' CLASSES IN ACADEMIES.

The number of academies in which teachers' classes were maintained, during the past year, was ninety. The attendance of pupils, as reported, was one thousand five

hundred and eighty-nine, of whom five hundred and ninety were males, and nine hundred and ninety-nine were females.

Academies, for the instruction of these classes, are annually designated by the Board of Regents in accordance with the statute, which also provides that the sum of ten dollars shall be paid for each pupil, not exceeding twenty to each academy, instructed "under a course prescribed by the Regents of the University, during at least one third of the academic year, in the science of common-school teaching."

A list of the academies designated for the instruction of classes in the science of common-school teaching, during the year 1872-3, will be found in the appendix, (Document R).

SUPERVISION.

The vital importance of thorough supervision, to the success of any system of public instruction, has been so fully discussed in my former reports, that it is unnecessary to dwell upon it here.

Its necessity seems to be conceded by all who have had any experience in the work of popular education, or who have intelligently observed it. This could hardly be otherwise, since effective supervision, in some form, is manifestly the principle of life in all properly conceived plans for general education. Without it, all expenditures of money, no matter how liberal, will be ineffectual. It is useless to build costly and convenient school-houses, and to employ an army of teachers, if the system lacks supervision.

The only question is in respect to the best means of securing it. None of the different plans suggested, which have come to my notice, would, if adopted, be better than that which has been adhered to so long in this State. Most of those proposed as a substitute for it have already been tried, and afterward abandoned because unfitted to produce the desired results. The present system of supervision by commissioners having been in operation since 1856, there has been ample time to test its merits, and to reveal any defects with which it may be justly chargeable. That it has imperfections is indeed true; but I am not convinced that any other method would subserve the purpose as well, or with less cost to the State. I would, however, favor any modifications that are really calculated to render it more effective.

Two changes, with this view, have been proposed: One relates to the number of commissioners, and the extent of territory over which they shall severally have jurisdiction; and the other, to the mode of selecting them. By the first, it is proposed to increase the number of those officers, and to reduce the size of their districts. The advocates of this plan propose, as a part of it, that the services of these officers shall be rendered gratuitously, but that their expenses shall be paid. The objection to the system of supervision by town superintendents, stated in my report of 1870, that so large a number of officers, for this service, distributed throughout the State, would render it impracticable to conduct many of the operations of this Department with requisite directness and precision, applies with increased force to the plan under consideration. In fact, it is objectionable on nearly all the grounds

which led to the abandonment of that system. Nor would it, in my opinion, be less expensive. The sum allowed to the one hundred and fourteen commissioners, under the present system, would be found quite inadequate to meet the expenses which would be incurred by the two thousand officers, whom it is proposed to substitute for them, in making the necessary inspections of the schools under their charge, and in the performance of their various other official duties.

The other proposed change relates to the manner of selecting commissioners. It is suggested that they be appointed by some authority which shall be held responsible for the choice of competent and faithful officers, instead of choosing them by popular election. It is contended that the office is frequently bestowed upon incompetent persons as a reward for political service, in disregard of the requisite qualifications for an intelligent discharge of its varied and important duties. In respect to some of the commissioners elected at different times, there is foundation for this charge. I cheerfully bear testimony, however, to the ability and faithfulness of the large majority of those who have held the office since my connection with this Department.

Under either mode, improper selections would, without doubt, occasionally be made. There might be less danger of a bad choice were the office filled by appointment, and it is, therefore, a subject well worthy the consideration of the Legislature, whether the law should not be amended to that effect. But, in whatever mode the school commissioner may be selected, he should be required by law to give his undivided attention to the duties of that office.

SPECIAL APPROPRIATION FOR ACADEMIES.

The annual appropriation act for 1872 contains the following clause :

“For the benefit of the academies, and academical departments of union schools, the sum of \$125,000, or so much thereof as may be derived from a tax of one-sixteenth of one mill upon each dollar of the taxable property of the State ; the sum thus arising to be divided as the literature fund is now divided, which is hereby ordered to be levied for each and every year.”

Conceding the full value and importance that may be justly claimed for academic instruction, I respectfully submit that the taxation, authorized and directed by the passage above quoted, is liable to serious objections.

Prior to 1853, the public-school system embraced no provision for academic instruction. In that year an “act to provide for the establishment of union free schools” was passed, which authorizes districts organized under it “to establish in the same an academical department,” or to adopt existing academies therein situated, and to support them by local taxation. The same act directs that the public-school moneys, apportioned to such districts, shall be applied to departments below the academic. That is the extent to which the public-school system had gone in that direction, until 1872. Previously, quite a large number of academies had been organized by individuals, stock companies and religious denominations. These institutions have been aided by the State, by dividing among them the income of the Literature Fund since 1813, and part of the income of the United States Deposit Fund since 1838, which sums have never been reduced,

and, for several years past, have amounted to \$61,000. That amount the academies still receive, and the allowance, rated *per capita*, has increased from \$2.68 in 1862, and \$4.64 in 1867, to \$10.08 in 1872, for each academic scholar in attendance at the one hundred and ninety academies which reported and participated in the apportionment last year, while the public-school moneys annually distributed by the State for all purposes, including teachers' wages, libraries, salaries of school commissioners, supervision in cities, support of normal schools and teachers' institutes, and the supply of school registers for nearly twelve thousand districts, amount to but \$2.84 *per capita* for all who attend our public schools, and but \$1.94 for each child of school age residing in the several districts. The balance needed for the full support of the schools is raised by local taxation.

Of the one hundred and ninety academies so participating in the distribution, forty were originally organized as academical departments in public schools, and forty-one have been adopted by the districts, wherein they are located, and thus converted into public schools, making eighty-one academies supported mainly by local taxation. The one hundred and nine others that participated, are private academies outside of the public-school system, and charge tuition.

Now the proposition is to raise an additional tax of \$125,000, for the special benefit of these public and private academies. It will be remembered that it has never been the policy of the State heretofore to maintain, or in any degree to assist, these academies by a general tax. It is

first to be determined, therefore, whether it is right and proper to adopt a new rule, and to tax the people of the State, at this time, for that kind of education. Upon this general question the following suggestions, made in the report of the Superintendent of Public Instruction for 1870, are deemed to be sufficiently pertinent to justify a repetition here.

“Should the academies be made free? Having provided a way whereby this may be done by the voluntary action of those directly interested, and who are willing to assume that burden, ought the State to go further, and support them by a general tax, or compel the communities where the academies are located to adopt and maintain them? I do not make this inquiry concerning the colleges; for the most advanced reformer has not yet suggested that character for those institutions. The free scholarships in Cornell University, secured to the several assembly districts, are exceptional. They are not a charge upon the State, nor upon any of its citizens. In establishing them, the State simply directed how the proceeds of the congressional grant of land-scrip should in part be applied.

“However great may be the personal advantage of an education, the primary object of the State, in bestowing it, is not to benefit individuals as such, but to qualify them properly for their relations and duties to each other as members of the same community. The true theory is, I apprehend, that each citizen has an interest in the education of all others, such as to justify the taking of private property to support public schools. Public instruction is a governmental measure, adopted to promote the security,

good order and common welfare of society, and thus to preserve the integrity of the State. But for this community of interest, the State would have no better right to take the property of one citizen to educate another, than it would have to give it to him directly. Advanced education is not, in my judgment, so essential to these public ends as elementary instruction, and consequently the obligation to provide for it is not so fundamental and imperative. Nor is it clear to my mind that public considerations would thereby be subserved in proportion to the extent of instruction beyond the course now authorized, though in many cases not pursued, in the common schools. What should be the proper limit of the effort and expense of the State in this matter is, however, a debatable question, which, for the purposes of this report, it is unnecessary to settle more definitely than has already been done by allowing local taxation for the support of academic departments in union schools; for I am satisfied that the provisions of law on this subject should remain as they now are, permissive, instead of being made compulsory.

“However thoroughly the public mind may be convinced that taxation to provide for rudimentary education is justifiable, I am of the opinion that the time has not yet arrived when it would be generally approved for the sake of conferring what is technically known as higher education. The most that can reasonably be asked or expected at the present time is, that localities may determine the question for themselves; and that, they now have power to do. In any union free-school district, the inhabitants may by vote direct the board of education

to establish an academic department, or they may adopt an academy, situated in the district, as such department. In all districts, trustees have power to prescribe the course of study to be pursued, and to select teachers of such grade of qualification as they may desire. Whenever, therefore, they may wish to have the classics and higher mathematics taught in the schools under their charge, there is nothing in the law to prevent them from having it done. That these things are not attempted is because public sentiment would rebel against such an injudicious exercise of this power.

“For years the academies have been surrounded by conditions favoring their conversion to a free-school system. While many have been absorbed in union schools, the fact that a majority of them have not been adopted shows that the sense of the communities where they are located is adverse to such a course. Much more certain is it that there is no disposition to support them by a general tax, for the benefit of particular localities. They cannot be universally established in connection with our public schools, because of the well-founded conviction that they are not commonly needed. As a mere piece of legislation, a law might be enacted to that effect; but if that should be done, and if the academic departments should be formally established, the law could not be practically executed in a large proportion of the districts, for want of scholars qualified to pursue an academic course of study.

“As it is, therefore, in the power of any district to establish and maintain a free high school, whenever it is willing to incur the expense, and as comparatively few

have yet ventured to exercise that power, it would seem to be a measure uncalled for, to make the existing academies free by a general tax, or to charge their support upon the communities in which they happen to be located, without reference to their wishes or necessities."

But if, in opposition to these considerations, and contrary to the former policy of the State, it should be determined to levy, for academic instruction, a third tax in addition to both the general and the local taxes now raised for public schools, there is no reason or justice in providing for that class of instruction more liberally than for common-school education. Certainly, academies, which only a comparatively small number of scholars attend, have no stronger claim upon the people of the State, than the common schools located in the several districts, where a great majority of the people receive their only education.

But the effect of this measure is to swell the amount for each academic pupil to \$30.74, as against \$2.84 for each common-school pupil; and the proposed increase is exacted from tax-payers all over the State, who, except in the few districts where the academies are located, cannot use them without sending their children from home, nor then, without paying tuition after having paid three distinct school taxes. Such a discrimination in favor of higher education, against those who cannot avail themselves of its advantages, is not only a wide departure from the policy heretofore pursued, but is manifestly unjust.

To levy a general tax to raise the State school moneys annually apportioned to the several districts, and then to

levy a local tax in the districts to make up the full amount needed to support the public schools, would seem to be all that could reasonably be demanded ; to levy a third tax of \$125,000 for academies, more than half of which would be given to the proprietors of private schools, to enable them to compete with the public schools supported by the first two taxes named, would, in more than one sense, be an imposition.

There are, moreover, special objections to giving any moneys, raised by tax, to those academies which are not public, but which belong to stockholders, or companies, or religious denominations, who manage them for profit, and will receive for themselves this appropriation, if made, as they do the tuition which they charge. How many of them are sectarian in their character is not definitely ascertained, as that fact is not reported, nor willingly admitted. It is well-known, however, that a number of them are institutions of strict sectarian character, and, for that reason alone, are not entitled to support by general taxation. But all of the private academies are managed for the religious or personal interests of their proprietors, and are no more entitled to be supported by public taxation, in competition with the public schools, than are the thousands of private elementary schools. If they are to be supported at the public expense, let them become public schools, as many of that class already have, and as the law now provides. If, however, they are to subserve any denominational or personal interests, let those who own them, and who retain control over them for such purposes, maintain them. They have no claim to public support. The tax in question is, indeed,

asked for by those who expect to receive it, but it does not appear that others ask the privilege to pay it.

A general tax for academic instruction, if proper in any case, which is questionable, should be applied only to such instruction in public academies.

The circumstance that teachers' classes are maintained in some of the academies is no argument in favor of the appropriation in question, for it is not made in consideration of such classes, but is to be divided, like the income of the literature fund, according to the number of academic pupils. The usual appropriation of \$18,000, which they now receive for teachers' classes, is not all used. A bill, No. 168, has been introduced in the Senate, during the present session, to authorize the application of \$2,500 of an unexpended balance of the appropriation made, in 1871, for such classes, to the purchase of books and apparatus.

Now that the State has developed a public-school system, ample for the educational wants of the people, that embraces eight normal schools to train teachers for the common schools, and that authorizes the establishment of academies, or the adoption of those already existing, in districts where they are needed and the people are willing to support them, which system has been made free to all by general and local taxation, there appears to be no necessity or justification for increasing that taxation, for the purpose of giving to rival private schools more than they have heretofore received and still receive from the income of the Literature Fund and from the income of the United States Deposit Fund, and vastly more, in proportion, than the common schools receive.

The tax under consideration, if continued, would deter private academies, though supported at public expense, from becoming public schools, as the law provides, by making it more profitable for their owners to keep them as they are. It would tend to perpetuate the existence of the two distinct and conflicting departments of education in this State, instead of uniting them in one harmonious plan. It would weaken our free-school system, and encourage further assaults upon it.

It is respectfully submitted, that it would be better for the cause of education generally, should the State devote its energies and resources exclusively to its own system of public instruction, with a view to render it so efficient and acceptable to all classes, that none shall desire to oppose it.

ABRAM B. WEAVER,
Superintendent of Public Instruction.

DOCUMENTS

ACCOMPANYING THE

REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.



LIST OF DOCUMENTS

ACCOMPANYING THE

REPORT OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

- Table No.**
1. Statement of State tax, levied in 1867 and in 1872.
 2. Statement of School tax paid, and School moneys received, by each county.
 3. Apportionment of School moneys.
 4. Abstract of Statistical reports of School Commissioners.
 5. Abstract of Financial reports of School Commissioners.
 6. Increase and diminution of the capital of the Common School Fund.
 7. Investment of the capital of the School Fund.
 8. Comparative Statistical and Financial statements for the years 1867 and 1872.
 9. Statistics of Teachers' Institutes.
 10. Statistics of Indian Schools.
- Document A.** Report of the Principal of the New York Institution for the Instruction of the Deaf and Dumb.
- B. Report of the Superintendent of the Allegany and Cattaraugus Indian Reservation.
 - C. Report of the Superintendent of the Oneida and Madison Indian Reservation.
 - D. Report of the Superintendent of the Onondaga Indian Reservation.
 - E. Report of the Superintendent of the St. Regis Indian Reservation.
 - F. Report of the Superintendent of the Shinecock Indian Reservation.
 - G. Report of the Superintendent of the Tonawanda Indian Reservation.

- H. Report of the Superintendent of the Tuscarora Indian Reservation.
- I. Annual report of Thomas Asylum for Indian Children.
- J. Annual report of the Normal School at Brockport.
- K. Annual report of the Normal School at Buffalo.
- L. Annual report of the Normal School at Cortland.
- M. Annual report of the Normal School at Fredonia.
- N. Annual report of the Normal School at Geneseo.
- O. Annual report of the Normal School at Oswego.
- P. Annual report of the Normal School at Potsdam.
- Q. Normal School circular.
- R. List of Academies to Instruct Common School Teachers.
- S. List of School Commissioners.
- T. Reports of School Commissioners.

TABLE No. 1.

STATEMENT of the State Tax of three-fourths of a mill, levied in 1867, and of the State Tax of one and one-fourth mills, levied in 1872, for the support of Common Schools.

COUNTIES.	1867.		1872.	
	Valuation.	Amount of tax.	Valuation.	Amount of tax.
Albany	\$42,507,461	\$53,134 33	\$48,258,474	\$60,323 09
Allegany	8,220,456	10,375 87	8,795,001	10,998 75
Broome	8,169,356	10,211 87	8,032,939	10,041 17
Cattaraugus	7,271,389	9,099 11	8,577,137	10,731 43
Cayuga	20,986,840	26,233 55	20,132,164	25,165 31
Chautauqua	14,781,104	18,476 38	16,694,513	20,868 14
Chemung	8,438,346	10,547 81	8,839,243	11,049 05
Chemango	10,603,878	13,254 85	11,312,941	14,141 18
Clinton	5,540,710	6,926 59	6,026,888	7,533 54
Columbia	22,384,000	27,980 00	21,358,103	26,697 63
Cortland	6,093,953	7,617 44	7,462,086	9,327 53
Delaware	9,074,588	11,243 17	8,456,708	10,670 85
Dutchess	30,994,697	38,743 37	33,686,113	42,107 64
Erie	49,155,379	61,444 23	51,300,731	64,125 90
Essex	4,645,473	5,806 84	5,424,637	6,789 80
Franklin	4,812,060	6,015 08	5,762,584	7,203 33
Fulton	3,773,415	4,716 77	3,769,616	4,712 03
Genesee	14,330,663	17,913 33	14,205,463	17,756 83
Greene	7,337,317	9,171 65	5,835,437	7,294 39
Hamilton	4,973,355	6,221 69	747,160	933 95
Herkimer	10,561,324	13,201 53	9,673,023	12,091 23
Jefferson	10,060,503	12,075 63	14,093,389	18,366 74
Kings	138,317,235	173,596 62	195,138,347	243,922 33
Lewis	4,249,911	5,312 39	3,928,617	4,910 77
Livingston	14,071,331	17,589 16	15,067,963	18,834 85
Madison	10,415,871	13,019 84	11,149,347	13,936 63
Monroe	31,595,049	39,493 81	30,422,590	38,028 34
Montgomery	8,452,219	10,565 37	7,671,069	9,588 84
New York	713,388,058	891,735 07	1,041,353,633	1,301,567 04
Niagara	14,600,249	18,250 81	14,713,143	18,391 43
Oneida	26,519,630	33,149 60	29,686,310	37,107 89
Onondaga	29,251,385	36,564 93	34,719,633	43,399 54
Ontario	18,169,333	22,711 55	19,215,008	24,018 76
Orange	30,456,123	38,107 65	28,312,599	35,393 00
Orleans	11,190,771	13,988 46	10,705,301	13,381 50
Oswego	14,131,173	17,663 97	15,193,051	18,991 31
Otsego	12,099,594	15,194 49	12,506,304	15,632 76
Putnam	5,811,649	7,364 56	7,106,268	8,882 84
Queens	23,804,630	29,755 79	26,318,395	33,897 99
Rensselaer	26,888,935	33,611 16	30,062,497	37,673 13
Richmond	6,244,297	7,805 37	8,148,035	10,185 04
Rockland	6,332,354	7,977 94	8,927,337	11,159 77
St. Lawrence	16,756,233	20,945 39	13,941,965	17,427 46
Saratoga	13,005,899	16,257 37	12,419,513	15,534 40
Schenectady	5,825,634	7,293 03	5,526,709	6,906 39
Schoharie	6,172,451	7,715 56	5,547,246	6,934 06
Schuyler	4,706,985	5,883 97	4,411,068	5,513 89
Seneca	11,247,143	14,058 93	10,384,967	13,031 30
Steuben	13,841,210	17,301 51	14,792,944	18,491 13
Suffolk	10,045,159	12,556 45	11,816,277	14,770 35
Sullivan	3,718,889	4,648 61	2,969,218	3,711 53
Tioga	5,833,333	7,391 54	6,001,003	7,501 25
Tompkins	8,095,517	10,119 40	8,086,133	10,107 67
Ulster	14,784,094	18,480 13	13,222,760	16,528 45
Warren	2,476,560	3,095 70	3,006,673	3,758 34
Washington	14,744,743	18,430 33	15,233,396	19,041 63
Wayne	15,232,436	19,041 80	14,833,435	18,604 33
Westchester	48,186,408	60,233 00	59,977,694	74,973 13
Wyoming	8,995,374	11,244 09	9,204,637	11,505 63
Yates	8,129,305	10,161 63	7,911,384	9,889 33
Total	\$1,664,107,735	\$2,080,134 65	\$2,083,637,445	\$2,610,784 31

TABLE No. 2.

STATEMENT showing the amount of School Tax paid by each County, the amount of Tax received back, the amount of Common School Fund received, and the total amount received by each County.

COUNTIES.	School tax paid.	School tax received.	Common School fund received.	Total received.
Albany	\$60,838 09	\$64,957 04	\$7,196 94	\$72,153 29
Allegany	10,998 75	27,814 88	2,448 47	30,263 35
Broome	10,041 17	23,243 78	2,521 57	30,764 35
Cattaraugus	10,731 43	30,107 94	2,649 11	33,756 95
Cayuga	25,165 31	35,967 15	3,253 68	39,220 83
Chautauqua	20,868 14	39,033 85	3,468 03	42,550 88
Chemung	11,049 05	21,584 58	1,946 86	23,531 44
Chenango	14,141 18	23,594 10	2,501 64	31,095 74
Clinton	7,583 54	28,545 46	2,690 90	31,136 86
Columbia	26,697 68	26,858 31	2,463 00	29,320 31
Cortland	9,337 53	17,151 34	1,511 13	18,663 46
Delaware	10,570 88	31,831 86	2,757 49	34,559 35
Dutchess	42,107 64	40,227 65	3,732 43	43,960 07
Erie	64,125 90	96,296 61	10,453 08	106,749 64
Essex	6,780 80	19,625 75	1,733 08	21,267 83
Franklin	7,203 23	19,732 19	1,754 23	21,476 42
Fulton	4,712 02	16,323 57	1,477 08	17,799 65
Genesee	17,756 88	18,776 84	1,705 11	20,481 95
Greene	7,294 29	20,033 17	1,795 41	21,297 58
Hamilton	933 95	2,541 94	1,214 27	2,766 21
Herkimer	12,091 28	24,889 15	2,235 49	27,124 64
Jefferson	18,866 74	43,147 97	3,297 68	46,975 65
Kings	243,922 98	198,085 05	23,073 41	221,158 46
Lewis	4,910 77	20,219 06	1,789 11	21,908 17
Livingston	18,834 95	23,385 98	2,110 41	25,496 34
Madison	13,936 68	27,666 40	2,474 12	30,140 52
Monroe	38,028 24	61,610 24	6,272 50	67,862 74
Montgomery	9,588 84	18,890 59	1,748 81	20,639 40
New York	1,801,567 04	457,364 94	54,196 98	511,561 98
Niagara	13,291 43	29,245 82	2,673 07	31,917 89
Oneida	37,107 89	65,355 98	5,984 87	71,290 90
Onondaga	43,899 54	62,244 51	6,144 97	68,889 45
Ontario	24,018 76	27,535 16	2,484 87	30,030 03
Orange	35,892 00	43,138 51	4,021 38	47,159 59
Orleans	13,331 50	17,320 77	1,554 48	18,875 25
Oswego	13,991 31	46,768 11	4,237 16	51,005 27
Otsego	15,633 76	33,394 63	2,940 93	36,295 56
Putnam	8,883 84	8,930 69	815 84	9,746 53
Queens	32,897 99	25,994 52	2,434 45	39,423 97
Rensselaer	37,578 12	52,908 46	5,443 49	58,440 95
Richmond	10,185 04	15,566 61	1,499 25	17,065 86
Rockland	11,159 17	12,866 42	1,214 39	14,100 81
St. Lawrence	17,427 46	55,634 53	4,941 42	69,576 00
Saratoga	15,594 40	31,093 35	2,813 42	33,906 77
Schenectady	6,908 39	12,034 97	1,106 52	13,141 49
Schoharie	6,984 06	22,034 36	1,953 87	23,968 23
Schoharie	5,518 33	12,554 93	1,113 19	13,666 17
Schuyler	12,981 20	16,324 42	1,437 42	17,531 84
Seneca	18,491 18	44,994 80	3,985 30	48,980 10
Steuben	14,770 35	26,363 16	2,436 98	26,799 14
Suffolk	3,711 52	31,898 50	1,959 58	25,558 06
Tioga	7,501 25	19,438 66	1,737 53	21,166 18
Tompkins	10,107 67	20,897 37	1,637 75	22,235 13
Ulster	16,528 45	45,128 99	4,199 91	49,238 83
Warren	3,758 34	14,750 29	1,811 39	16,061 68
Washington	19,041 63	31,445 61	2,613 35	34,256 96
Wayne	13,604 36	20,084 13	2,691 68	23,726 90
Westchester	74,973 12	67,173 87	6,235 40	73,498 27
Wyoming	11,505 32	19,175 54	1,702 24	20,677 78
Yates	9,889 23	12,509 95	1,117 66	13,397 61
Indians .....	.....	3,172 00	.....	3,172 00
Contingent Fund Bal.	.....	1,712 53	.....	1,712 53
Total	\$2,610,734 31	\$2,443,784 31	\$243,800 00	\$2,692,584 31

TABLE No. 3.
Apportionment of School Moneys for the year 1873.

COUNTIES. (TOWNS AND CITIES.)	Population.	Number of teachers employed for 36 weeks or more.	APPORTIONMENT FOR TEACHERS' WAGES.		Libraries.	Supervision.	Total.
			District quotas.	According to population.			
Albany city.....	41,479	166	\$7,999 54	\$16,493 55	\$520 51	.....	\$25,013 60
Cohoes.....	76,316	132	7,324 86	80,306 23	956 43	\$1,000 00	89,587 54
Allegany.....	15,367	36	1,253 94	6,106 50	193 70	.....	7,553 14
Broome.....	40,814	260	13,433 30	16,239 13	513 17	.....	30,263 35
Binghamton.....	31,411	235	10,843 75	12,490 15	394 17	.....	23,737 07
Cattaraugus.....	12,692	38	1,831 22	5,046 80	159 26	.....	7,037 28
Cayuga.....	43,909	306	14,746 14	17,459 80	551 01	.....	33,756 95
Auburn.....	42,335	263	12,625 78	16,839 95	531 13	.....	29,966 86
Chautauque.....	17,325	45	2,165 55	6,849 26	216 14	.....	9,233 97
Chemung.....	59,337	373	18,315 83	23,590 56	744 50	.....	43,550 83
Elmira.....	19,418	181	6,313 89	7,731 30	243 67	.....	14,277 86
Chenango.....	15,963	57	2,746 83	6,307 70	199 03	.....	9,283 58
Clinton.....	40,564	300	14,457 00	16,139 71	509 03	.....	31,095 74
Columbia.....	38,439	186	8,968 84	13,260 71	463 34	.....	24,736 26
Hudson.....	8,615	23	1,060 18	3,425 64	103 10	.....	4,589 92
Cortland.....	25,173	173	8,386 87	10,009 69	315 90	.....	18,693 46
Dutchess.....	53,973	353	16,923 85	17,037 23	539 25	.....	34,569 35
Dutchess.....	53,961	283	11,469 22	21,456 84	677 15	.....	33,603 21
Poughkeepsie.....	20,060	44	2,130 36	7,994 53	251 97	.....	10,356 86
Erle.....	60,935	313	15,035 26	24,249 84	765 30	.....	40,050 43
Buffalo.....	117,714	351	16,914 69	46,807 34	1,477 19	.....	66,699 23
Essex.....	39,043	196	9,445 24	11,548 15	364 44	.....	21,357 83
Franklin.....	30,371	183	6,059 72	13,036 84	373 86	.....	21,476 43
Fulton.....	27,064	139	6,068 41	10,731 52	339 63	.....	17,739 65
Genesee.....	31,606	156	7,517 64	12,567 69	386 63	.....	20,451 95
Greene.....	31,833	183	8,770 58	13,657 55	399 45	.....	21,827 58
Hamilton.....	2,900	33	1,543 08	1,177 00	87 13	.....	2,706 21

Table No. 3 — (Continued).

COUNTIES. (TOWNS AND CITIES.)	Population.	Number of teachers employed for 25 weeks or more.	APPORTIONMENT FOR TEACHERS' WAGES.		Libraries.	Supervision.	Total.
			District quotas.	According to population.			
Herkimer	30,969	233	\$10,746 37	\$15,877 21	\$501 06	.....	\$37,124 64
Jefferson	56,079	384	18,504 96	23,269 08	708 73	.....	41,507 73
Watertown	9,896	34	1,638 46	3,713 33	117 14	.....	6,467 93
Kings	23,883	45	2,168 55	9,473 49	208 93	.....	11,969 97
Brooklyn	293,069	887	43,744 53	197,503 26	4,970 70	\$4,000 00	203,218 49
Lewis	38,699	213	10,216 26	11,411 76	260 13	.....	31,933 17
Livingston	38,309	203	9,733 57	15,233 04	480 73	.....	33,493 34
Madison	43,033	235	12,393 45	17,305 93	546 15	.....	30,140 53
Monroe	52,433	245	11,808 45	22,081 65	636 24	.....	34,564 44
Rochester	62,335	180	7,283 30	24,806 92	733 36	.....	33,813 30
Montgomery	34,497	135	6,535 65	12,701 35	433 40	.....	31,639 49
New York	942,393	2,377	114,547 63	874,639 31	11,894 96	10,500 00	511,561 23
Niagara	33,011	198	9,300 67	15,114 55	478 12	.....	34,893 34
Lockport	13,483	40	1,937 60	4,941 08	153 93	.....	7,094 55
Oneida	31,304	445	21,444 55	33,269 64	1,019 03	.....	54,733 23
Utica	28,304	178	4,723 63	11,433 51	1,391 45	.....	16,537 59
Onondaga	61,133	333	17,011 07	24,308 29	797 14	.....	43,096 50
Syracuse	43,051	169	8,144 11	17,118 63	540 24	500 00	36,303 96
Ontario	45,108	339	11,517 41	17,936 57	566 05	.....	30,090 08
Orangetown	63,693	243	11,951 13	25,404 18	801 73	.....	33,127 03
Newburgh	17,014	42	2,093 93	6,765 39	313 50	.....	9,013 38
Orleans	37,639	136	7,517 64	11,010 16	247 43	.....	18,873 26
Oswego	57,031	231	12,463 29	23,677 55	715 65	.....	33,893 25
city	20,910	74	3,566 06	8,314 57	203 29	.....	12,143 03
Otsego	43,997	237	10,940 08	19,471 05	614 43	.....	36,336 53
Putnam	15,430	71	2,431 49	6,131 55	198 49	.....	9,746 53
Queens	61,000	161	7,703 59	24,494 83	773 08	.....	33,083 39
Long Island City	13,303	39	1,397 51	4,833 35	153 12	.....	6,403 93
Rensselaer	53,034	232	10,746 37	21,103 11	666 15	.....	33,530 63
Troy	45,465	133	6,361 06	18,476 16	533 03	500 00	35,030 23

SUPERINTENDENT OF PUBLIC INSTRUCTION.

Richmond	22,089	73	2,517 87	12,123 29	414 47	.....	.....	17,065 66
Brookland	26,212	78	2,735 68	10,085 60	216 89	.....	.....	14,100 61
St. Lawrence	74,780	507	24,428 23	29,723 80	988 04	.....	.....	55,098 67
Ogdensburg	10,076	85	1,549 23	4,005 88	126 43	.....	.....	6,463 33
Saratoga	51,589	265	15,770 35	20,459 79	646 63	.....	.....	23,906 77
Schenectady	10,281	60	2,591 40	4,104 00	129 51	.....	.....	7,134 91
city	11,093	81	1,498 99	4,384 34	128 26	.....	.....	6,016 56
Schoharie	23,340	214	10,213 06	13,297 19	418 38	.....	.....	23,998 23
Schoharie	13,959	123	5,379 18	7,550 71	239 32	.....	.....	12,663 17
Seneca	27,833	133	8,409 37	11,053 43	349 14	.....	.....	17,681 84
Steuben	67,717	440	21,233 60	26,026 72	949 73	.....	.....	48,980 10
Suffolk	46,924	193	9,541 02	12,638 63	593 64	.....	.....	26,739 14
Sullivan	24,550	201	8,636 19	12,793 23	433 56	.....	.....	22,863 06
Tioga	23,073	170	8,636 01	12,156 53	363 64	.....	.....	21,166 16
Tompkins	23,178	179	8,636 01	12,192 77	416 84	.....	.....	23,263 13
Ulster	24,075	206	14,843 53	33,431 26	1,055 05	.....	.....	49,286 63
Warren	23,593	141	6,794 79	8,993 89	233 50	.....	.....	16,061 68
Washington	49,568	259	13,995 91	19,710 03	632 02	.....	.....	34,263 80
Wayne	47,710	273	13,155 87	18,971 23	593 71	.....	.....	73,493 27
Westchester	131,346	406	19,565 14	23,298 71	1,643 29	.....	.....	20,877 78
Wyoming	29,164	135	8,915 15	11,596 66	365 97	.....	.....	13,637 61
Yates	19,595	116	5,590 04	7,791 68	245 89	.....	.....	91,200 00
Salaries of school commissioners .....	.....	.....	.....	.....	.....	.....	91,200 00	.....
Indians .....	.....	.....	.....	.....	.....	.....	3,173 00	.....
Contingent fund balance	4,705	27	.....	.....	.....	.....	1,712 53	.....
Total	4,387,464	18,033	\$971,371 68	\$1,743,743 16	\$55,000 00	\$114,069 57	.....	\$2,783,704 31

* By special act, Utica is entitled to 98 quotas.

† For separate neighborhood, from contingent fund.

TABLE No. 4.

ABSTRACT of the Statistical Reports of the School Commissioners of the State of New York, for the year ending September 30, 1872.

COUNTIES. (TOWNS AND CITIES.)	Number of districts.	1. No. of licensed teachers employed at the same time for 28 weeks or more.	2. No. of children between 5 and 21 years of age, resid- ing in district September 30, 1872.	3. No. of private schools.	4. No. of pupils attending pri- vate schools.	5. Average number of weeks school was kept by teach- ers duly licensed.	TEACHERS.					19. Number of inspections by commissioners.
							7.					
							Licensed by					
							Local officers.	State Superin- tendent.	Normal school.	Males.	Females.	
Albany, towns.....	123	166	14,436	16	995	84.8	380	16	13	110	199	941
city.....	34	132	29,668	65	5,000	41.0	128	1	41	22	145	...
Cohoes.....	21	26	9,885	2	250	42.4	21	...	8	2	27	...
Allegany.....	263	260	13,939	4	80	39.7	552	...	10	121	443	180
Broome, towns.....	211	225	10,625	1	60	30.4	415	18	4	104	383	370
Binghamton.....	8	88	3,902	6	593	40.0	25	1	21	5	43	...
Cattaraugus.....	276	306	15,493	2	30	30.8	586	1	9	138	249	230
Cayuga, towns.....	286	303	13,638	4	83	33.7	486	8	6	157	343	448
Auburn.....	9	45	4,933	4	500	38.3	40	6	2	4	44	...
Chautauque.....	200	378	20,127	16	723	32.2	670	18	23	193	513	316
Chemung, towns.....	116	131	6,392	3	65	31.6	241	6	...	54	183	94
Chemung.....	83	57	5,332	2	399	39.3	53	4	4	2	56	...
Chemung.....	289	300	12,167	...	...	39.3	588	14	...	171	431	443
Clinton.....	304	288	13,618	10	393	30.6	453	4	1	95	363	303
Columbia, towns.....	178	186	12,678	12	345	35.6	307	14	3	87	237	363
Hudson.....	5	23	3,431	5	384	44.0	20	1	1	1	30	...
Cortland.....	177	173	7,494	2	115	39.6	236	7	1	81	263	263
Delaware.....	246	252	14,041	...	...	39.6	637	7	...	180	464	386
Dutchess, towns.....	203	223	17,494	21	615	37.7	285	23	10	101	316	340
Poughkeepsie.....	15	44	6,305	9	675	41.3	49	...	3	2	50	...

Table No. 4—(Continued).

COUNTIES. (TOWNS AND CITIES.)	Number of districts.	1	2	3	4	5	TEACHERS.					19					
							No. of licensed teachers employed at the same time for 26 weeks or more.	No. of children between 5 and 21 years of age, resid- ing in district September 30, 1872.	No. of private schools.	No. of pupils attending pri- vate schools.	Average number of weeks school was kept by teach- ers duly licensed.		7				No. of inspections by com- missioner.
													Licensed by	Male.	Female.		
Schenectady, towns.	59	60	3,965	..	..	84.8	106	2	..	..	23	79	106
city	7	31	4,498	4	500	83.0	31	1	..	9	4	88	..				
Schoharie	205	214	11,155	1	27	83.5	408	4	8	8	163	237	298				
Schuyler	116	123	5,873	5	116	83.1	285	6	..	..	53	173	54		
Seneca	100	133	9,393	7	109	85.9	313	10	1	1	77	147	177				
Stenben	373	440	24,894	1	25	82.9	813	23	4	4	191	649	329				
Suffolk	147	198	15,810	21	377	87.3	943	15	7	7	94	321	320				
Sullivan	301	301	13,597	3	180	83.0	370	8	..	..	103	263	84		
Tioga	166	179	9,690	3	243	82.9	187	2	..	..	41	150	268		
Tompkins	155	179	10,103	9	199	83.1	316	12	6	6	104	350	331				
Ulster	226	305	31,331	17	1,900	85.3	376	17	94	97	324	326	331				
Warren	143	141	8,480	4	320	80.7	276	3	..	..	53	236	84		
Washington	265	369	17,675	3	60	81.9	493	20	8	8	139	391	329				
Wayne	319	273	15,990	8	100	83.8	451	14	3	3	140	337	373				
Westchester	157	406	48,115	103	2,968	41.0	433	39	14	14	114	361	403				
Wyoming	170	185	9,243	4	46	80.3	361	7	1	1	66	263	278				
Yates	103	116	6,139	3	118	83.9	303	7	..	..	74	135	311		
Total for towns	11,387	13,353	859,175	561	20,998	83.8	23,539	647	273	273	9,268	17,191	17,940				
Total for cities	694	4,800	633,773	798	110,763	41.3	4,480	448	270	270	403	4,796	..				
Total for State	12,081	18,153	1,492,948	1,359	131,761	35.0	27,019	1,095	543	543	6,670	21,987	17,940				

Table No. 4 — (Continued).

COUNTIES. (TOWNS AND CITIES.)	NO. OF CHILDREN ATTENDING SCHOOL DURING THE YEAR.			AVERAGE DAILY ATTENDANCE DURING THE YEAR.			WHOLE NO. OF DAYS OF ATTENDANCE AT SCHOOL DURING THE YEAR.		
	8	9	10	11	12	Total.	13	14	15
	Residing in the district.	Residing in other districts.	Total.	Of children residing in the district.	Of children residing in other districts.	Total.	Of children residing in the district.	Of children residing in other districts.	Total.
Albany, towns.....	8,726	177	8,903	4,009,300	55,304	4,064,604	734,808	9,719	744,527
City.....	12,400	.....	12,400	5,849,000	.....	5,849,000	1,240,368	.....	1,240,368
Cohoes.....	2,126	.....	2,126	1,135,000	.....	1,135,000	242,590	.....	242,590
Allegany, towns.....	10,648	431	11,079	5,335,531	140,875	5,476,406	785,176	24,034	809,210
Broome, Binghamton.....	8,321	315	8,636	4,333,776	77,544	4,411,320	663,371	14,379	677,750
Cattaraugus.....	2,472	.....	2,472	1,434,000	.....	1,434,000	307,393	.....	307,393
Cayuga, towns.....	12,133	277	12,410	6,115,707	89,339	6,205,046	919,751	13,865	933,616
Auburn.....	10,335	303	10,638	5,251,356	111,863	5,363,219	841,277	20,183	861,460
Chautauque.....	2,595	.....	2,595	1,870,000	.....	1,870,000	358,940	.....	358,940
Chemung, Lewis.....	14,438	1,300	15,738	8,009,746	461,507	8,471,253	1,304,339	52,513	1,353,852
Chemung, Elmira.....	5,360	.....	5,360	2,665,634	.....	2,665,634	430,025	.....	430,025
Chenango.....	3,132	.....	3,132	2,366,000	.....	2,366,000	436,402	.....	436,402
Clinton.....	9,154	444	9,598	4,739,932	154,579	4,894,511	738,705	28,580	767,285
Columbia, towns.....	11,943	231	12,174	5,330,436	66,835	5,397,271	814,206	11,062	825,263
Columbia, Hudson.....	3,502	167	3,669	2,323,731	53,313	2,377,044	690,711	8,900	699,611
Cortland.....	1,716	.....	1,716	860,000	.....	860,000	204,330	.....	204,330
Cortland.....	5,719	278	5,997	2,805,309	50,494	2,855,803	422,468	11,340	433,748
Delaware.....	11,436	307	11,743	5,677,343	59,660	5,737,003	865,556	10,359	875,915
Dutchess, towns.....	10,737	173	10,910	5,003,224	53,301	5,056,525	940,562	10,482	957,044
Poughkeepsie.....	2,918	.....	2,918	1,275,000	.....	1,275,000	265,300	.....	265,300
Erie, towns.....	16,073	576	16,649	7,601,113	165,944	7,767,057	1,170,428	27,642	1,198,070
Buffalo.....	20,017	.....	20,017	10,533,000	.....	10,533,000	2,115,279	.....	2,115,279
Essex.....	8,016	235	8,251	3,798,806	63,187	3,861,993	563,077	14,401	577,478
Franklin.....	8,177	216	8,393	3,707,517	76,170	3,783,687	593,644	12,757	606,401
Fulton.....	6,684	57	6,741	3,513,930	28,339	3,542,269	507,740	4,434	512,174
Genesee.....	7,704	83	7,787	3,815,609	31,983	3,847,592	635,080	5,374	640,454
Greene.....	7,633	154	7,787	3,664,330	57,935	3,722,265	634,772	10,391	645,163
Hamilton.....	7,843	24	7,867	3,355,403	4,513	3,360,916	50,069	670	50,739

Table No. 4—(Continued).

COUNTIES. (TOWNS AND CITIES.)	NO. OF CHILDREN ATTENDING SCHOOL DURING THE YEAR.			AVERAGE DAILY ATTENDANCE DURING THE YEAR.			WHOLE NO. OF DAYS OF ATTENDANCE AT SCHOOL DURING THE YEAR.			
	8	9	10	11	12	Total.	18	14	15	Total.
	Residing in the district.	Residing in other dis- tricts.	Total.	Of children residing in the district.	Of children residing in other dis- tricts.	Total.	Of children residing in the district.	Of children residing in other dis- tricts.		
Herkimer	9,331	233	9,563	4,897,213	74,548	4,971,761	798,680	13,424	810,114	
Jefferson, towns	14,236	439	14,675	7,117,801	141,931	7,259,732	1,062,963	22,170	1,085,032	
Watertown	2,063	...	2,063	1,163,000	...	1,163,000	231,960	...	231,960	
Kings, towns	3,968	78	3,446	1,331,927	49,154	1,441,081	268,516	5,973	289,489	
Brooklyn	74,463	...	74,463	37,431,000	...	37,431,000	7,560,304	...	7,560,304	
Lewis	7,651	150	7,801	3,597,927	48,741	3,646,668	531,940	7,748	539,688	
Livingston	9,004	208	9,210	4,439,465	69,079	4,494,544	709,489	10,257	719,746	
Madison	9,644	409	10,053	5,099,888	157,113	5,197,001	782,912	27,916	813,828	
Monroe, towns	12,456	449	12,905	5,731,765	199,408	5,941,173	976,680	25,174	1,004,794	
Rochester	8,761	...	8,761	5,137,000	...	5,137,000	1,010,772	...	1,010,772	
Montgomery	7,827	207	8,027	3,475,641	54,579	3,530,220	660,647	10,323	660,870	
New York	235,890	...	235,890	104,336,000	...	104,336,000	19,948,869	...	19,948,869	
Niagara, towns	9,538	313	9,848	4,634,223	104,919	4,739,141	768,401	16,890	787,081	
Lockport	3,172	...	3,172	1,537,000	...	1,537,000	284,380	...	284,380	
Oneida, towns	19,137	713	19,850	9,523,145	223,446	9,745,591	1,539,558	35,065	1,577,643	
Utica	4,293	...	4,293	2,738,000	...	2,738,000	492,968	...	492,968	
Onondaga, towns	15,633	596	16,219	8,113,677	219,610	8,333,287	1,258,537	40,510	1,299,047	
Syracuse	7,910	...	7,910	5,656,000	...	5,656,000	1,111,133	...	1,111,133	
Ontario	10,598	437	10,945	5,351,346	149,160	5,510,506	910,769	25,476	936,245	
Orange, towns	14,944	289	15,233	6,714,523	109,574	6,824,127	1,304,540	21,379	1,325,919	
Newburgh	2,238	...	2,238	1,647,000	...	1,647,000	232,359	...	232,359	
Orleans	7,130	183	7,313	3,307,901	53,741	3,421,642	560,496	9,505	560,003	
Oswego, towns	15,134	400	15,534	7,614,318	125,876	7,740,194	1,172,359	30,943	1,193,601	
city	4,637	...	4,637	2,304,000	...	2,304,000	639,744	...	639,744	
Otsego	11,643	196	11,839	5,985,681	54,706	6,040,387	988,985	10,695	999,680	
Putnam	3,403	98	3,496	1,576,230	25,910	1,602,190	292,505	4,730	297,235	
Queens, towns	11,163	314	11,477	5,063,868	192,492	5,276,314	1,051,319	19,532	1,070,771	
Long Island City	2,938	...	2,938	1,189,000	...	1,189,000	246,945	...	246,945	

Rensselaer, towns.....	11,809	911	12,084	5,467,518	67,108	5,534,931	985,498	11,646	970,114
Troy.....	5,677	.....	5,770	2,443,390	.....	2,471,936	549,194	.....	901,184
Richmond.....	5,894	60	5,954	2,543,390	32,095	2,471,936	549,194	5,877	904,911
Rodland.....	118	.....	140	2,381,814	145,907	2,473,871	549,194	5,877	904,911
St. Lawrence, towns.....	605	.....	90,798	10,874,753	168,707	10,487,460	1,509,195	39,480	1,838,618
Ogdensburg.....	.....	.....	12,085	5,654,000	.....	5,654,000	967,378	.....	1,197,878
Saratoga.....	191	.....	12,085	5,654,000	43,167	5,697,804	967,378	6,976	967,178
Schenectady, towns.....	2,517	10	2,527	1,171,799	3,915	1,175,714	967,378	.....	967,178
city.....	2,011	.....	2,011	1,208,000	.....	1,208,000	967,378	7,765	967,178
Schoharie.....	5,689	158	5,780	2,990,774	44,435	2,990,774	967,378	7,765	967,178
Schuyler.....	4,705	136	4,841	2,356,789	40,368	2,397,897	384,918	7,458	384,918
Seneca.....	7,111	119	7,230	3,402,485	48,476	3,450,904	601,531	9,458	610,978
Steuben.....	18,774	515	19,269	9,008,075	208,714	9,209,789	1,463,579	38,650	1,500,259
Suffolk.....	10,996	213	11,206	5,888,509	79,178	5,467,897	1,000,512	14,358	1,014,764
Sullivan.....	9,813	88	9,905	4,960,661	33,340	4,268,001	703,117	3,786	703,848
Tioga.....	7,498	310	7,798	3,903,882	130,797	3,994,549	1,525,485	30,509	1,545,995
Tompkins.....	7,087	263	7,350	3,698,981	86,378	3,698,981	591,760	14,651	606,411
Ulster.....	20,738	181	20,909	9,335,131	57,932	9,398,053	1,812,641	11,732	1,894,873
Warren.....	6,541	113	6,654	3,590,983	33,332	3,613,310	585,414	5,089	590,493
Washington.....	19,686	181	19,867	6,321,696	58,096	6,379,704	1,032,477	10,335	1,093,818
Wayne.....	12,335	491	12,756	6,122,813	128,497	6,351,310	1,032,477	26,612	1,093,818
Westchester.....	25,139	504	25,643	12,738,763	210,915	12,039,678	2,612,819	45,059	2,658,878
Wyoming.....	7,268	381	7,519	3,630,861	76,514	3,696,875	516,514	12,705	539,560
Yates.....	4,577	290	4,797	2,118,097	72,786	2,190,763	350,485	13,046	363,531
Total for towns.....	598,705	16,153	614,858	289,442,501	5,553,993	294,996,545	49,283,518	951,700	50,294,518
Total for cities.....	409,273	.....	409,273	199,853,000	.....	199,853,000	38,479,418	.....	38,479,418
Total for State.....	1,007,978	16,153	1,024,130	489,295,501	5,553,993	494,849,545	87,763,231	951,700	88,713,981

Table No. 4—(Continued).

COUNTIES. (TOWNS AND VILLAGES.)	DISTRICT LIBRARIES.		SCHOOL-HOUSES.					38	
	20		21	23				Value of school-house and site.	Value of school-house and site.
	No. of volumes in district library.	Value of library.	District has case for library.	Log.	Frame.	Brick.	Stone.			Total.
Albany, towns.....	12,865	\$4,966	114	117	29	7	153	\$27,522	\$142,448
city.....	5,300	8,250	.....	4	30	.....	24	115,000	495,000
Cohoes.....	1,550	2,200	.....	1	4	.....	5	35,000	70,000
Allegany.....	10,339	5,297	153	254	1	.....	266	21,979	125,160
Broome, towns.....	3,002	3,002	115	306	2	.....	308	12,701	122,366
Binghamton.....	7,595	3,000	.....	.....	8	.....	8	38,000	173,000
Cattaraugus.....	4,617	4,617	166	345	2	.....	273	94,014	133,207
Cayuga, towns.....	5,402	5,402	143	191	28	.....	324	21,231	193,318
Auburn.....	2,500	2,500	.....	.....	8	.....	8	90,000	115,000
Chautauque.....	15,365	12,365	205	365	14	.....	301	74,051	42,888
Chemung, towns.....	4,883	4,216	65	117	.....	.....	117	14,850	75,082
Elmira.....	1,300	900	.....	2	5	.....	7	46,000	152,000
Chemango.....	8,335	8,335	180	279	2	.....	283	26,148	143,185
Clinton.....	11,043	6,426	108	135	34	15	1	30,104	115,154
Columbia, towns.....	9,276	4,854	122	170	7	.....	177	22,310	104,265
Hudson.....	1,175	1,250	.....	1	3	.....	4	13,000	43,000
Cortland.....	6,500	2,127	120	154	4	.....	170	20,798	90,798
Delaware.....	12,635	7,051	192	222	.....	.....	13,151	20,426	132,556
Dutchess, towns.....	12,639	7,735	119	159	.....	.....	20,045	22,910	220,910
Poughkeepsie.....	8,046	7,000	.....	.....	11	.....	6	22,000	110,000
Erie, towns.....	20,628	9,509	205	321	45	.....	320	22,272	204,263
Buffalo.....	16,300	15,000	.....	.....	9	.....	47	67,955	324,432
Essex.....	12,041	5,528	95	183	15	3	1	17,145	117,145
Franklin.....	8,449	4,708	131	181	18	14	1	11,056	115,056
Fulton.....	3,206	3,206	63	111	4	.....	115	22,405	98,400
Genesee.....	8,263	5,043	72	114	8	.....	143	22,903	113,810
Greene.....	12,211	10,276	126	143	10	.....	163	18,010	104,965
Hamilton.....	581	5,371	8	22	.....	.....	23	1,115	10,560
Herkimer.....	11,446	5,112	127	165	14	10	122	16,626	114,150
Jefferson, towns.....	16,576	7,145	199	204	6	36	351	216,413	51,364
Waterson.....	1,200	1,200	.....	1	5	.....	9	5,000	63,000

	5,765	5,765	10	14	2	16	14,475	53,265
King, town.	5,765	43,500	...	14	2	...	14,475	53,265
Lewis	4,438	4,438	...	15	2	...	15,189	50,000
Livingston	9,008	128	7	155	2	5	15,189	50,000
Madison	7,598	175	7	157	11	3	15,189	50,000
Monroe, towns	8,884	8,884	...	181	5	4	15,189	50,000
Rochester	5,500	...	...	131	57	23	15,189	50,000
Montgomery	5,196	...	...	...	30	...	15,189	50,000
New York	5,778	4,549	97	100	11	6	15,189	50,000
Niagara, towns	16,841	9,748	...	94	1	...	15,189	50,000
Lockport	5,700	5,700	4	...	107	53	15,189	50,000
Onondaga, towns	5,705	9,730	...	...	8	...	15,189	50,000
Utica	5,841	14,830	263	380	13	3	15,189	50,000
Onondaga, towns	19,778	5,787	...	308	16	...	15,189	50,000
Syracuse	19,778	9,500	300	...	18	...	15,189	50,000
Ontario	19,098	6,262	...	147	26	...	15,189	50,000
Orange, towns	10,572	10,571	138	145	26	15	15,189	50,000
Newburgh	8,272	14,800	...	...	4	...	15,189	50,000
Orleans	8,019	4,873	74	108	10	29	15,189	50,000
Oswego, towns	14,194	7,136	193	...	26	...	15,189	50,000
Otsego	4,010	3,219	...	9	5	1	15,189	50,000
Putnam	17,851	7,454	423	801	8	18	15,189	50,000
Queens, towns	5,679	1,858	...	56	5	...	15,189	50,000
Long Island City	13,595	12,457	73	77	...	...	15,189	50,000
Rensselaer, towns	19,594	13,538	165	168	1	...	15,189	50,000
Troy	1,037	830	...	2	16	...	15,189	50,000
Richmond	7,018	7,296	28	16	9	...	15,189	50,000
Rockland	7,064	8,539	34	34	6	1	15,189	50,000
St. Lawrence, towns	20,251	9,216	186	885	55	29	15,189	50,000
Orleansburgh	3,143	3,010	...	...	7	...	15,189	50,000
Saratoga	18,573	8,033	177	186	27	6	15,189	50,000
Schenectady, towns	8,339	4,115	81	47	7	...	15,189	50,000
Schoharie	3,115	4,137	...	139	2	...	15,189	50,000
Schenoy	10,247	1,177	107	113	4	...	15,189	50,000
Seneca	8,720	1,873	...	69	33	...	15,189	50,000
Staten	8,408	7,659	169	340	...	...	15,189	50,000
Suffolk	18,577	8,186	113	134	7	3	15,189	50,000
Sullivan	3,097	4,698	104	189	1	...	15,189	50,000
Tioga	10,522	6,573	195	163	5	...	15,189	50,000
Tompkins	9,743	4,481	101	150	3	...	15,189	50,000
Ulster	24,244	14,166	181	196	19	13	15,189	50,000
Warren	4,965	1,955	55	123	4	...	15,189	50,000
Washington	19,015	8,181	171	185	48	3	15,189	50,000
Wayne	14,888	8,593	135	145	23	45	15,189	50,000

Table No. 4 — (Continued).

COUNTIES. (CITIES AND TOWNS.)	DISTRICT LIBRARIES.			SCHOOL-HOUSES.				23	
	20		21	23				Value of school-house and site.	Value of school-house and site.
	No. of volumes in district library.	Value of library.	District has case for library.	Log.	Frame.	Brick.	Stone.		
Westchester.....	28,713	\$32,067	128	.....	129	29	4	\$214,643	\$690,893
Wyoming.....	12,199	6,945	112	.....	166	4	2	21,856	148,893
Yates.....	4,880	2,616	55	.....	59	10	5	13,899	51,090
Total for towns.....	741,963	\$382,801	7,173	131	9,890	969	473	\$1,375,233	\$9,850,896
Total for cities.....	132,281	\$147,932	.....	.....	51	339	10	\$3,871,743	\$15,165,314
Total for State.....	874,198	\$530,733	7,173	131	9,941	1,198	483	\$4,746,975	\$24,516,260

TABLE No. 5.
 ABSTRACT of the Financial Reports of School Commissioners, for the year ending September 30, 1872.

COUNTIES. (TOWNS AND CITIES.)		RECEIPTS.					
1	2	3	4	5		6	
Am't on hand Oct. 1, 1871.	Amount ap- portioned to district.	Proceeds of Gospel and School lands.	Raised by tax.	From all other sources. Teachers' board.	Other sources not named.	Total.	
Albany, towns.....	\$24,315 51	\$35,104 86	\$51,970 87	\$7,268 26	\$1,139 39	\$99,518 29	
city.....	29,655 71	38,875 40	143,315 43	.....	440 88	517,287 36
Cohoes.....	7,665 15	7,488 75	15,143 56	.....	544 00	30,811 47
Allegany.....	7,739 08	30,135 56	33,897 30	6,739 69	1,470 74	73,948 67	
Broome, towns.....	383 63	23,743 80	33,886 15	6,045 80	2,751 37	67,086 90	
Binghamton.....	.....	6,839 43	36,000 00	.....	3,404 37	45,233 70
Cattaraugus.....	1,649 82	32,315 94	43,831 56	7,934 30	3,435 43	87,961 95	
Cayuga, towns.....	1,851 48	31,040 04	43,710 43	3,861 10	9,538 79	84,900 94	
Auburn.....	1,813 19	42,077 35	36,000 00	.....	1,793 32	43,449 17
Chautauque.....	2,017 70	42,077 35	93,151 95	7,092 89	9,604 47	163,145 13	
Chemung, towns.....	1,886 81	14,086 65	17,946 76	3,985 30	4,473 86	37,957 37	
Clinton.....	48,069 10	9,077 31	53,567 71	.....	1,799 81	110,533 88
Elmira.....	1,187 31	81,865 08	93,467 10	13,370 10	2,351 11	76,949 96	
Chenango.....	1,992 78	32,054 23	39,351 69	1,835 98	4,853 39	70,007 86	
Columbia, towns.....	1,975 78	24,437 96	42,000 44	2,190 86	914 34	71,599 38	
Hudson.....	4,248 90	4,502 99	6,000 00	.....	289 50	14,961 39
Cortland.....	319 79	18,669 30	15,532 17	4,695 14	373 44	40,659 94	
Delaware.....	877 66	34,066 88	44,938 58	19,846 73	1,311 46	100,861 36	
Dutchess, towns.....	7,051 60	32,739 34	92,396 65	1,545 86	8,781 86	143,504 96	
Poughkeepsie.....	4,796 82	10,309 54	41,612 50	.....	16,941 53	73,490 39
Erie, towns.....	2,835 51	38,462 40	55,300 00	1,324 55	4,179 46	103,537 14	
Buffalo.....	102,247 33	65,631 50	203,455 69	.....	403 05	377,927 57
Essex.....	1,804 11	20,896 68	36,739 21	1,419 00	1,497 30	61,370 10	
Franklin.....	21,846 35	31,846 35	30,461 89	2,397 43	2,286 69	49,664 28	
Fulton.....	3,960 92	17,766 58	39,093 49	2,932 30	580 34	60,537 13	
Genesee.....	653 14	30,193 55	34,469 94	1,294 50	890 26	57,480 41	

Table No. 5—(Continued).

COUNTRIES. (TOWNS AND CITIES.)	REVENUES.						
	1	2	3	4	5		6
	Am't on hand Oct. 1, 1871.	Amount ap- portioned to district.	Proceeds of Gospel and School lands.	Raised by tax.	From all other sources. Teachers' board.	Other sources not named.	Total.
Greene.....	\$385 56	\$31,879 81	\$575 00	\$33,405 37	\$3,050 63	\$611 04	\$64,785 41
Hamilton.....	1,013 99	2,579 01	81 81	5,792 17	902 50	69 34	10,388 83
Herkimer.....	4,808 53	26,649 91	.....	49,165 43	4,159 40	383 44	85,166 76
Jefferson, towns.....	1,913 13	41,569 26	166 00	49,736 87	7,576 22	863 81	101,874 05
Watertown.....	53 43	5,334 50	.....	30,000 00	.....	4,777 56	30,155 49
Kings, towns.....	6,988 48	11,733 97	416 50	37,997 37	.....	1,530 60	48,396 93
Brooklyn.....	368,556 24	305,385 50	.....	561,700 00	.....	24,024 25	1,149,646 09
Lewis.....	463 36	21,430 78	.....	22,030 83	2,393 00	633 81	48,032 41
Livingston.....	1,908 26	20,830 78	.....	38,963 45	2,337 35	1,885 04	70,004 81
Madison.....	2,302 01	20,939 47	819 06	52,138 73	2,697 73	2,763 89	92,660 23
Monroe, towns.....	3,317 37	34,266 08	.....	60,331 37	435 63	2,368 16	100,663 50
Rochester.....	63,927 31	38,009 00	.....	117,000 00	.....	598 38	214,464 69
Montgomery.....	1,360 54	20,310 79	20 00	30,463 34	1,450 50	459 74	62,964 91
New York.....	60,980 47	307,643 87	.....	2,705,323 33	.....	1,333 03	3,276,218 76
Niagara, towns.....	9,833 13	24,643 79	431 36	53,096 04	96 00	1,337 96	88,338 17
Lockport.....	15,866 04	6,817 80	.....	23,500 00	.....	7,723 94	52,307 76
Onondaga, towns.....	2,192 04	53,896 17	535 70	62,500 75	1,913 10	4,475 88	140,504 64
Utica.....	24,037 18	15,396 25	.....	37,800 00	.....	611 00	78,744 43
Onondaga, towns.....	4,244 36	42,018 44	3,082 81	90,840 66	1,439 18	4,701 92	126,377 03
Syracuse.....	43,983 39	26,334 85	880 50	119,000 00	.....	21,631 72	210,968 98
Ontario.....	7,719 50	26,497 95	.....	62,354 56	5,351 05	6,923 77	112,056 73
Orange, towns.....	19,398 16	8,918 43	.....	38,639 63	.....	2,774 49	137,862 02
Newburgh.....	3,465 71	18,588 79	.....	37,940 15	.....	768 46	66,766 19
Orleans.....	2,134 01	18,588 79	.....	24,636 08	.....	1,460 89	61,300 47
Oswego, towns.....	2,140 19	28,693 44	313 96	50,393 53	2,349 00	1,467 81	96,384 80
city.....	1,140 19	12,151 78	44 86	32,764 60	2,331 55	1,956 96	87,088 39
Otsego.....	1,010 44	25,713 92	140 22	43,009 45	12,178 65	1,399 55	96,451 32
Fulton.....	1,790 36	9,576 09	.....	30,307 08	.....	1,384 30	31,364 13

Queens, towns	32,397 44	13,487 91	97,179 97	50 00	2,383 59	187,380 80
Long Island City	8,983 47	194 71	17,393 16	688 25	1,701 14	80,178 08
Rensselaer, towns	31,833 66	.....	74,040 01	.....	1,689 77	182,977 84
Troy	14,083 23	.....	64,140 16	.....	585 84	102,319 44
Richmond	14,083 23	608 14	38,988 16	.....	585 84	61,458 28
Rockland	54,535 57	3,360 16	54,374 10	9,673 43	1,465 51	132,098 73
St. Lawrence, towns	5,336 85	.....	10,811 74	.....	1,397 50	32,523 58
Ogdensburgh	32,390 73	10 99	67,996 31	1,587 08	519 11	112,190 88
Saratoga	3,988 00	.....	12,719 86	.....	301 44	30,970 46
Schenectady, towns	2,913 44	.....	13,143 74	.....	2,177 93	21,335 10
Schoharie	23,684 67	.....	31,946 51	11,437 44	1,100 65	68,867 46
Schuyler	14,087 53	630 05	30,868 58	4,043 33	633 70	41,595 34
Seneca	17,473 58	1,890 15	41,850 40	540 97	2,325 09	69,434 73
Steuben	43,344 34	81 00	70,415 18	11,119 88	9,740 44	147,396 33
Suffolk	23,009 54	.....	74,754 65	.....	8,875 37	117,993 33
Sullivan	23,533 31	.....	30,937 84	2,518 94	1,190 31	59,033 79
Tioga	30,413 90	.....	37,684 05	5,847 06	1,667 43	67,369 03
Tompkins	31,799 03	2,180 71	34,155 59	6,790 35	593 69	67,397 23
Ulster	48,435 01	.....	103,075 73	7,440 08	7,813 81	170,104 61
Warren	15,790 27	.....	12,541 60	3,088 33	1,589 45	31,679 31
Washington	32,937 18	.....	59,667 06	2,357 75	1,589 14	101,375 59
Wayne	33,077 30	179 08	55,101 04	4,113 53	2,075 84	97,730 33
Westchester	72,343 08	1,500 00	804,007 88	.....	10,469 66	445,186 26
Wyoming	20,790 45	991 37	38,708 34	1,303 67	30,086 87	68,410 73
Yates	13,658 97	.....	18,494 38	7,533 89	196 09	40,640 50
Total for towns	\$1,641,978 12	\$36,452 62	\$2,940,892 78	\$235,660 87	\$160,744 62	\$5,289,448 06
Total for cities	\$1,016,887 98	\$44 86	\$4,340,065 60	.....	\$30,732 21	\$6,396,689 74
Total for State	\$2,658,866 10	\$36,497 48	\$7,280,958 38	\$235,660 87	\$190,466 83	\$11,556,037 80

Table No. 5—(Continued).

PAYMENTS.									
COUNTIES. (TOWNS AND CITIES.)	7	8	9	10	11	12	13	14	15
	For teachers' wages.	For libraries.	For school apparatus.	For colored schools.	For school-houses, sites, fences, out-houses, repairs, furniture, etc.	For all other incidental expenses.	Forfeited in hands of supervisor first Tuesday of March, 1872.	Amount remaining on hand October 1, 1872.	Total.
Albany, towns.....	\$54,290 36	\$336 56	\$123 32	.....	\$5,249 97	\$6,323 84	.....	\$3,555 94	\$69,818 29
Albany, city.....	98,113 69	463 31	58 11	\$3,166 68	49,431 01	17,303 97	.....	49,871 39	\$17,267 36
Coches.....	14,174 55	133 75	29 60	.....	2,817 42	1,887 00	.....	11,793 95	30,811 47
Allegany.....	53,253 90	149 43	71 43	.....	7,163 79	5,697 20	\$0 35	1,887 37	72,988 67
Broome, towns.....	54,137 67	20 83	565 16	.....	7,043 97	4,480 43	.....	1,787 96	67,036 90
Brighton.....	19,686 67	292 83	365 00	550 00	20,465 20	4,075 19	.....	.....	45,333 79
Cattaraugus.....	69,600 29	323 98	233 98	.....	8,733 21	7,553 63	.....	1,584 11	87,961 95
Cayuga, towns.....	64,085 21	310 20	1,285 27	.....	12,187 99	6,163 68	.....	939 89	84,900 94
Auburn.....	31,976 00	123 15	100 75	.....	15,085 78	5,264 19	.....	5,900 80	48,449 17
Chautauque.....	169,794 43	1,263 24	511 98	.....	30,038 15	20,880 14	.....	8,775 18	166,143 12
Chemung, towns.....	31,098 67	11 98	198 84	.....	2,867 89	3,130 53	.....	689 36	37,937 27
Elmira.....	33,373 40	946 30	.....	.....	6,043 31	6,290 80	.....	64,661 12	110,533 63
Chemango.....	64,366 23	105 87	156 12	.....	6,443 26	5,009 03	26 60	733 85	76,949 96
Clinton.....	46,186 99	267 46	154 96	.....	11,767 09	6,009 49	11 45	2,630 50	70,007 86
Columbia, towns.....	59,267 29	97 67	818 83	240 00	4,556 70	5,100 80	.....	1,517 99	71,599 28
Hudson.....	7,790 00	136 00	915 65	584 81	1,110 03	1,103 68	.....	4,112 72	14,981 39
Cortland.....	35,578 52	35 20	104 70	.....	1,933 55	2,632 16	.....	333 81	40,689 94
Delaware.....	31,073 26	57 23	129 10	.....	14,219 17	4,933 63	.....	358 66	100,691 26
Dutchess, towns.....	86,699 40	263 04	2,186 13	175 06	32,796 11	7,633 25	.....	12,645 03	142,606 96
Poughkeepsie.....	17,135 26	703 83	.....	635 00	43,973 35	5,695 06	.....	5,687 50	73,490 39
Erle, towns.....	76,796 05	763 27	604 32	.....	15,973 73	7,637 46	35 72	1,835 59	108,567 14
Buffalo.....	293,613 13	1,460 45	.....	1,361 70	10,236 07	39,550 16	.....	102,151 63	377,937 57
Essex.....	43,331 13	78 83	58 66	.....	10,236 07	8,340 18	.....	2,316 23	61,376 10
Franklin.....	35,486 18	547 78	254 59	.....	4,804 46	4,908 05	.....	3,813 23	49,654 28
Fulton.....	44,975 64	19 36	996 33	.....	9,964 10	4,181 06	.....	3,813 23	60,537 12
Genesee.....	44,451 85	546 36	1,071 93	.....	8,373 43	4,954 53	.....	1,933 23	57,430 41
Greene.....	46,408 43	263 35	1,073 30	400 00	8,969 53	4,307 41	.....	1,477 36	64,786 11
Hamilton.....	6,235 45	.....	3 00	.....	2,000 70	335 67	.....	1,314 00	10,386 33

Herkimer	1,052 84	8,418 14	5,045 77	4 20	6,899 49	85,186 75
Jefferson, towns	1,590 41	10,440 70	3,468 66	.....	1,088 28	101,874 09
Watertown	92 04	10,440 60	3,468 66	.....	.....	50,155 49
Kings, towns	6,650 51	7,511 81	78,864 77	.....	11,008 09	48,846 09
Brooklyn	1,494 08	187,878 87	3,850 50	.....	338 11	1,140,646 09
Lewis	89 75	4,686 54	8,303 83	.....	1,556 31	40,009 41
Livingston	1,167 04	8,538 57	7,384 31	.....	1,669 44	40,009 41
Madison	1,466 87	13,708 50	9,581 07	.....	1,176 01	92,660 38
Monroe, towns	966 30	2,374 70	17,944 40	.....	87,888 97	100,563 50
Rochester	1,100 07	7,989 19	4,616 50	.....	1,388 09	814,464 09
Montgomery	138,608 86	607,898 94	461,688 97	.....	80,101 50	62,064 91
New York	505 75	28,033 39	7,143 56	.....	6,948 00	3,370,218 75
Niagara, towns	1 75	10,413 46	6,707 26	.....	2,708 78	58,907 17
Lockport	755 33	30,876 08	13,438 46	.....	4,497 86	149,504 64
Oneida, towns	131 04	7,464 11	10,171 63	.....	26,018 03	78,744 43
Utica	368 38	26,078 96	13,461 80	.....	48,488 63	136,377 08
Onondaga, towns	1,019 03	31,570 05	17,565 48	.....	43,801 64	310,068 96
Syracuse	586 16	17,781 17	13,486 63	.....	8,309 43	113,068 73
Ontario	453 60	17,638 51	8,980 15	.....	8,375 39	187,705 19
Orange, towns	1,846 91	26,707 99	5,881 93	.....	0,638 45	61,380 47
St. Lawrence	498 78	13,811 43	7,468 73	.....	1,189 06	96,384 30
Orleans	736 01	11,560 43	14,343 14	.....	2,369 27	67,088 39
Oswego, towns	337 66	10,784 38	6,950 88	.....	3,866 96	98,451 23
city	408 43	8,683 33	1,704 90	.....	985 41	31,364 18
Otsego	218 10	2,384 51	8,984 97	.....	2,019 57	187,260 30
Putnam	3,353 40	23,698 53	4,138 41	.....	2,735 68	96,377 34
Queens, towns	2,401 95	4,043 77	7,898 88	.....	33,654 30	136,259 05
Long Island City	1,323 35	15,639 77	15,514 16	.....	7,753 13	108,918 64
Rensselaer, towns	2,905 42	8,980 46	3,681 35	.....	6,933 69	61,459 23
Troy	2,005 07	10,701 70	9,910 07	.....	2,041 44	135,098 73
Richmond	1,788 06	11,859 81	3,484 68	.....	5,794 87	33,383 58
Rockland	1,624 87	2,077 81	10,053 08	.....	6,789 40	112,180 88
St. Lawrence, towns	1,980 01	23,353 59	10,053 08	.....	.....	30,970 46
Schuyler	79 87	3,169 85	2,644 34	.....	307 73	31,235 10
Saratoga	98 08	6,188 97	1,087 54	.....	4,807 23	68,387 46
Schenectady, towns	361 41	7,388 98	3,709 43	.....	41,596 34	41,596 34
city	2,596 79	6,488 83	2,709 43	.....	4,307 08	60,434 73
Schoharie	169 17	15,764 85	17,043 19	.....	8,373 68	147,386 38
Schuyler	315 15	20,063 68	7,543 71	.....	7,711 00	117,963 23
Seneca	780 00	30,165 90	3,661 10	.....	1,710 33	59,033 79
Steuben	540 00	7,988 73	4,551 84	.....	1,736 04	67,369 03
Suffolk	133 13	10,508 03	4,116 07	.....	1,523 95	87,267 23
Sullivan	177 23	11,391 50	11,888 78	.....	.....	170,104 61
Tioga	46,476 03	37,123 10	.....	.....	.....	.....
Tompkins	11,018 30	.....	.....	.....	.....	.....
Ulster	115,086 85	.....	.....	.....	.....	.....

Table No. 5—(Continued).

COUNTIES. (TOWNS AND CITIES.)	PAYMENTS.									
	7	8	9	10	11	12	13	14	15	
	For teachers' wages.	For libraries.	For school apparatus.	For colored schools.	For school-houses, sites, fences, out-houses, repairs, furniture, etc.	For all other incidental expenses.	Forfeited in hands of supervisor, 1st Tuesday of March, 1872.	Amount remaining on hand Oct. 1, 1872.	Total.	
Warren	\$34,830 97	\$36 56	\$8 48	.....	\$2,200 09	\$2,205 37	.....	\$247 94	\$31,679 31
Washington	72,391 60	263 96	233 08	.....	15,753 06	9,911 08	.....	2,714 90	101,276 59
Wayne	70,538 98	251 37	2,537 31	.....	11,066 14	9,695 36	.....	8,267 43	97,750 33
Wetcheater	231,709 76	1,494 98	15,543 73	\$263 54	93,479 46	40,000 30	.....	60,009 88	445,156 36
Wyoming	39,755 43	1,57 88	49 65	.....	29,753 77	7,049 75	.....	11,748 31	88,410 73
Yates	33,399 56	68 53	19 76	.....	4,492 17	3,354 65	.....	410 78	40,640 50
Total for towns...	\$2,640,589 49	\$15,197 87	\$57,715 36	\$4,690 13	\$373,779 04	\$438,850 70	\$143 13	\$360,543 84	\$3,289,443 06	
Total for cities....	\$2,316,926 27	\$10,823 13	\$167,966 08	\$59,835 04	\$1,110,144 14	\$731,960 12	.....	\$878,905 96	\$3,266,539 74
Total for State....	\$4,957,455 76	\$26,020 50	\$225,681 44	\$64,525 17	\$1,983,923 18	\$1,151,800 82	\$143 13	\$1,139,449 80	\$11,556,087 80	

TABLE No. 6.
 SCHEDULE showing the increase and diminution of the Capital of the Common School Fund during the year ending September 30th, 1872.

	Bonds for lands.	Bonds for loans.	Loan of 1840.	Bank stock.	Comptroller's bonds.	State stock.	Oswego city bonds.	Money in the treasury.	Total.
Amount of the fund October 1st, 1871.....	\$326, 118 65	\$158, 794 30	\$49, 236	\$50, 000	\$36, 000	\$1, 165, 057 34	\$42, 800	\$1, 296, 480 30	\$2, 978, 576 52
Increase of the fund, as stated below.....	.....	.....	.....	.....	.....	.....	.....	51, 087 06	51, 087 06
Diminution of the fund, as stated below.....	\$326, 118 65 9, 115 08	\$158, 794 30 7, 415 00	\$49, 236	\$50, 000	\$36, 000	\$1, 165, 057 34	\$42, 800 8, 600	\$1, 277, 547 36	\$2, 082, 643 58
Amount of the fund September 30th, 1872.....	\$317, 003 85	\$175, 379 30	\$49, 236	\$50, 000	\$36, 000	\$1, 165, 057 34	\$34, 200	\$1, 277, 547 36	\$3, 004, 513 55

INCREASE OF THE FUND.

Money in the treasury:	
Amount received into the treasury, viz.:	
Principal of bonds for lands.....	\$9, 115 08
Principal of bonds for loans.....	7, 415 00
Principal of Oswego city bonds.....	8, 600 00
From the income of the United States Deposit Fund.....	25, 000 00
Sales of lands.....	25, 987 08
	<u>\$51, 087 06</u>

DIMINUTION OF THE FUND.

Bonds for lands, viz.:	
Amount of principal paid into the treasury.....	\$9, 115 08
Bonds for loans, viz.:	
Amount of principal paid into the treasury.....	7, 415 00
Oswego city bonds, viz.:	
Amount of principal paid into the treasury.....	8, 600 00
	<u>\$25, 130 08</u>
Showing an increase of the fund of.....	<u>\$25, 987 08</u>

TABLE No. 7.

STATEMENT of the investment of the capital of the School Fund at the close of each fiscal year since its establishment, to September 30th, 1872.

YEARS.	BONDS.		LOANS OF			
	For lands sold.	For loans.	1788.	1792.	1808.	1840.
1805		\$24,900 00				
1806	887,674 88	42,800 00				
1807	168,407 68	62,778 00				
1808	212,246 81	88,408 00				
1809	219,985 21	101,501 00				
1810	282,702 97	69,658 75				
1811	240,370 67	101,924 62				
1812	268,743 26	148,965 98				
1813	280,342 26	222,540 51				
1814	268,124 96	245,084 17				
1815	291,434 91	328,107 80				
1816	320,165 53	382,076 98				
1817	309,893 60	397,980 71				
1818	316,434 39	390,000 17				
1819						
1820						
1821		4,554 87				
1822						
1823	23,388 89					
1824	85,749 12					
1825	100,564 46					
1826	112,751 28					
1827	186,324 59					
1828	201,611 65	1,500 00	\$31,624 88			
1829	212,121 98	1,500 00	30,065 21			
1830	242,813 52	18,800 00	20,665 00			
1831	335,283 22	30,850 00	10,157 22			
1832	570,409 23	17,668 08	9,611 47			
1833	651,510 80	24,650 00	9,158 69			
1834	801,446 30	40,655 00	3,394 85			
1835	1,098,577 98	176,644 48	2,826 87			
1836	1,154,869 48	190,330 89	2,815 12			
1837	1,118,998 85	264,530 21	2,815 12			
1838	1,094,221 62	287,596 29	2,815 12			
1839	1,047,653 80	326,613 68	2,815 12			
1840	1,022,300 85	409,087 14	2,815 12			
1841	1,087,554 15	424,118 08	2,815 12			
1842	1,014,005 07	409,316 11				
1843	1,001,442 82	367,538 28				
1844	975,711 18	389,561 87				
1845	913,861 67	311,883 88				
1846	887,624 28	298,941 43				
1847	826,449 19	257,865 88				
1848	744,554 97	236,901 74				
1849	708,388 29	246,181 75				
1850	710,775 40	196,269 02				
1851	632,385 30	209,084 73				
1852	584,010 87	217,845 36				
1853	567,299 02	236,754 17				
1854	540,682 91	248,968 97				
1855	531,558 12	248,967 29				
1856	535,026 19	234,338 05				
1857	529,977 86	310,227 59				
1858	515,967 73	349,198 11				
1859	488,446 07	381,218 09				
1860	459,210 53	370,253 41				
1861	422,778 87	408,469 71				
1862	412,687 78	375,747 61				
1863	370,889 96	339,461 05				
1864	335,891 17	285,026 15				
1865	317,668 48	254,902 88				
1866	290,081 17	197,868 54				
1867	265,068 50	200,177 98				
1868	229,850 08	202,491 66				
1869	221,347 79	239,888 72				
1870	214,301 13	215,431 69				
1871	226,118 68	182,794 80				
1872	217,088 65	178,579 50				

Table No. 7—(Continued).

YEARS.	Bank stock.	State stocks.	Comptrol-ler's bonds.	Money in the treas-ury.	Bonds for es-cheated lands.	Quit rents, arrears-ages of in-terest and mis-cellaneous	Owngo city bonds.	Total amount of capital.
1805.				\$1,874 10				\$36,774 10
1806.	\$50,000			2,088 13				183,162 96
1807.	64,000			16,978 93				307,164 56
1808.	70,850			3,606 67		\$30,831 47		390,637 15
1809.	79,100			3,350 30		24,231 40		428,177 91
1810.	118,500			326 33		28,455 87		483,326 29
1811.	165,000			2,338 37		48,831 13		558,464 69
1812.	180,000			5,345 54		43,703 89		636,758 07
1813.	255,000			35,955 43		36,830 19		822,064 94
1814.	270,000			42,548 02		35,750 84		861,457 89
1815.	270,000					44,482 92		934,015 13
1816.	270,000							962,242 26
1817.	264,000							971,364 31
1818.	261,000			17,454 53		60,000 00		1,044,839 09
1819.	180,000					100,000 00		1,229,076 00
1820.	180,000					86,500 00		1,215,536 00
1821.	180,000					52,011 41		1,185,641 98
1822.	180,000			3,822 50	\$6,686 85	20,064 55		1,155,837 40
1823.	180,000	\$13,000 00		8,827 91	8,853 63	7,620 23		1,172,913 28
1824.	180,000	13,000 00		89,025 37		27,620 23		1,290,046 14
1825.	180,000	165,000 00		9,520 56	11,781 88			1,319,886 46
1826.	180,000	220,000 00		11,830 88	12,163 58			1,353,477 64
1827.	280,000	220,000 00		97,653 00	11,676 37			1,611,097 80
1828.	280,000	320,000 00		70,446 24	23,607 81			1,684,628 80
1829.	280,000	395,826 00		45,091 72	26,368 55			1,711,081 24
1830.	280,000	407,000 00		83,463 85				1,735,569 66
1831.	280,000	407,000 00		61,987 64				1,754,159 40
1832.	230,000	327,000 00		7,714 02				1,735,175 28
1833.	230,000	330,000 00						1,754,046 84
1834.	230,000	230,000 00						1,731,321 77
1835.	105,050			52,413 15				1,775,191 71
1836.	103,250			64,111 29				1,917,494 17
1837.	102,300			39,880 37				1,919,647 68
1838.	102,300	1,720 79		55,266 05		\$2,700 00		1,929,707 51
1839.	102,300	21,755 91		67,414 57		\$3,000 00		1,932,421 99
1840.	102,300	21,755 91		117,542 10				2,033,807 95
1841.	102,300	25,200 96		12,302 06				2,036,625 68
1842.	102,300	25,200 96		48,797 91				1,968,290 72
1843.	102,300	25,200 96		115,086 31				1,975,083 15
1844.	102,300	25,200 96		219,384 85				1,992,916 35
1845.	50,000	115,500 96		\$51,645 49	320,354 11			2,060,632 41
1846.	50,000	115,500 96		51,645 49	413,928 46			2,133,928 46
1847.	50,000	115,500 96		51,645 49	555,406 32			2,170,514 47
1848.	50,000	280,500 96		451,645 49	143,236 81			2,211,475 14
1849.	50,000	228,200 96		656,445 49	64,665 05			2,243,563 36
1850.	50,000	218,200 96		884,981 65	152,179 53			2,290,673 23
1851.	50,000	215,200 96	1,034,981 65	112,548 13				2,325,449 72
1852.	50,000	198,200 96	1,052,981 65	206,578 80				2,354,530 09
1853.	50,000	198,200 96	1,054,986 16	230,481 87				2,383,257 23
1854.	50,000	198,200 96	1,043,841 33	229,147 49				2,425,211 97
1855.	50,000	231,460 96	1,043,841 33	282,667 85				2,457,520 86
1856.	50,000	231,460 96	1,043,841 33	347,329 30				2,491,916 14
1857.	50,000	231,460 96	1,043,841 33	312,339 00				2,526,392 24
1858.	50,000	936,502 29	356,300 00	294,740 34				2,551,260 52
1859.	50,000	936,502 29	356,300 00	324,763 71				2,586,251 16
1860.	50,000	936,502 29	356,300 00	385,444 45				2,607,036 68
1861.	50,000	1,135,057 24	356,300 00	296,173 20				2,625,476 94
1862.	50,000	1,135,057 24	356,300 00	279,521 84				2,658,116 42
1863.	50,000	1,135,057 24	356,300 00	394,019 08				2,694,552 33
1864.	50,000	1,135,057 24	356,300 00	523,312 59				2,734,213 15
1865.	50,000	1,135,057 24	356,300 00	603,006 22				2,765,760 77
1866.	50,000	1,165,057 24	36,000 00	1,011,555 09				2,799,630 04
1867.	50,000	1,165,057 24	36,000 00	1,061,297 67				2,827,465 34
1868.	50,000	1,165,057 24	36,000 00	1,054,571 42			\$66,000	2,853,306 40
1869.	50,000	1,165,057 24	36,000 00	1,063,010 26			60,000	2,880,017 01
1870.	50,000	1,165,057 24	36,000 00	1,133,397 98			51,400	2,915,633 04
1871.	50,000	1,165,057 24	36,000 00	1,226,480 30			42,800	2,978,576 52
1872.	50,000	1,165,057 24	36,000 00	1,277,547 36			34,300	3,004,513 55

* Treasury notes.

TABLE No. 8.
COMPARATIVE STATISTICS of the Common Schools of the State for the fiscal year ending September 30, 1872, and for the year ending September 30, 1867.
STATISTICAL.

	1872.			1867.		
	Cities.	Rural districts.	Totals.	Cities.	Rural districts.	Totals.
Number of school districts.....	694	11,387	12,081	308	11,414	11,722
Number of teachers employed at the same time for twenty-eight weeks or more.....	4,800	12,356	18,056	2,568	12,040	15,608
Number of children between five and twenty-one years of age.....	662,778	889,175	1,551,953	581,379	845,603	1,376,982
Average number of weeks each school was taught by duly qualified teachers.....	41.3	32.8	36.0	41.8	30.6	39.7
Number of male teachers employed.....	403	6,268	6,670	343	4,989	5,371
Number of female teachers employed.....	4,796	17,191	21,987	17,568	17,568	31,218
Number of children attending school.....	409,273	614,858	1,024,130	363,288	589,915	949,203
Average daily attendance.....	199,863	324,997	494,860	.....	.....	.....
Number of times schools have been visited by commissioners.....	.....	17,240	17,240	.....	16,685	16,685
Number of volumes in district libraries.....	182,221	741,983	924,204	110,300	1,001,771	1,112,071
Number of school-houses—log.....	.....	131	131	.....	1,173	1,173
Number of school-houses—frame.....	51	9,890	9,941	54	9,736	9,803
Number of school-houses—brick.....	889	1,198	2,087	945	1,041	1,986
Number of school-houses—stone.....	10	473	483	9	531	540
Total number of school-houses.....	890	11,853	12,743	808	11,946	12,754

TABLE No. 8—(Continued).
FINANCIAL.

	1872.			1867.		
	Cities.	Rural districts.	Totals.	Cities.	Rural districts.	Totals.
RECEIPTS:						
Amount on hand at the beginning of the year.....	\$318,869 09	\$264,749 05	\$1,088,618 14	\$638,188 83	\$109,180 32	\$745,369 14
Apportionment of public moneys.....	1,016,887 86	1,641,978 13	2,658,866 10	469,263 20	984,086 44	1,453,349 64
Proceeds of the gospel and school lands.....	44 86	38,453 63	38,498 49	1,085 64	24,968 60	26,054 24
Raised by tax.....	4,840,065 60	2,940,893 78	7,780,959 38	8,719,143 46	1,888,612 07	10,607,755 53
Raised by rate bills.....	.....	.....	.....	.....	743,047 73	743,047 73
Estimated value of teachers' board.....	.....	235,660 87	235,660 87	.....	.....	.....
From all other sources.....	90,723 21	169,744 63	260,468 83	292,448 56	623,888 83	896,337 39
Totals	\$6,266,589 74	\$5,389,448 06	\$11,656,037 80	\$5,088,018 68	\$3,817,730 99	\$8,905,749 67
EXPENDITURES:						
For teachers' wages.....	\$3,816,986 97	\$3,640,530 49	\$6,987,455 76	\$2,917,098 94	\$2,609,449 70	\$5,526,548 64
For libraries.....	10,823 13	15,197 87	26,021 00	8,309 04	16,180 21	24,489 25
For school apparatus.....	167,966 06	97,715 36	265,681 44	190,917 75	20,747 72	\$11,665 47
For colored schools.....	59,895 04	6,680 13	66,575 17	51,530 69	4,892 54	\$6,423 23
For school-houses, sites, etc.....	1,110,144 14	878,779 04	1,988,923 18	1,012,432 87	700,694 14	1,713,127 01
For all other incidental expenses.....	731,950 13	499,860 70	1,231,810 83	1,512,683 91	888,183 91	2,390,867 82
Forfeited in hands of supervisors.....	.....	143 13	143 13	.....	887 80	887 80
Amount on hand at the end of the year.....	878,905 96	260,543 84	1,139,449 80	1,065,125 48	197,423 97	1,262,549 45
Totals	\$6,266,589 74	\$5,389,448 06	\$11,656,037 80	\$5,088,018 68	\$3,817,730 99	\$8,905,749 67

TABLE No. 9.
Statistics of Teachers' Institutes for the year 1872.

COUNTIES.	Place of meeting.	Date of commencing.	Number of weeks.	NUMBER OF TEACHERS IN ATTENDANCE.			AVERAGE DAILY ATTENDANCE.			Aggregate number of days of attendance.	AVERAGE NO. OF TERMS TEACHERS HAVE TAUGHT.		
				Male.	Female.	Total.	Male.	Female.	Total.		Male.	Female.	Total.
Albany	Chesterville	Feb. 5	1	87	85	172	74.2	66.0	140.2	701	4.8	3.9	4.3
Alegany	Angella	Sept. 9	1	49	99	148	23.7	57.9	81.6	816	8.0	4.1	5.4
Broome	Binghamton	Aug. 19	2	38	94	132	20.7	68.9	89.6	985	2.5	6.3	5.5
Cattaraugus	Little Valley	Sept. 23	2	34	80	114	17.3	46.6	63.9	639	5.6	6.7	6.3
Cayuga	Weedport	Oct. 7	1	60	113	173	39.0	78.3	117.3	1,173	4.6	5.6	5.2
Chautauqua	Westfield	Oct. 7	1	118	186	306	76.2	136.8	213.0	1,065	5.7	5.6	5.6
Chenango	Horseheads	Aug. 13	2	23	101	124	11.9	58.4	63.3	830	6.9	5.4	6.7
Clinton	Oxford	Aug. 26	2	51	81	132	29	53	82	830	2.9	4.7	4.0
Columbia	Plattsburgh	Aug. 13	2	17	74	91	9.5	44.1	53.6	536	4.4	5.2	5.0
Cortland	Homer	Oct. 7	2	70	127	197	51.3	84.9	136.2	1,362	1.8	3.6	3.0
Delaware	Delhi	Sept. 23	2	79	100	179	44.9	51.0	95.9	1,053	2.0	7.1	4.9
Dutchess	Poughkeepsie	June 3	2	151	195	346	88.1	101.7	190.3	1,017	11.2	9.6	10.0
Erie	Springville & Clarence	Oct. 7	2	96	149	244	38.2	63.9	102.1	1,011	3.1	4.4	3.9
Essex	Elizabethtown	Aug. 12	2	8	32	40	5.0	17.2	22.2	222	1.4	5.9	5.0
Franklin	Malone	Oct. 21	2	23	79	102	15.8	59.8	75.6	756	2.3	3.0	2.9
Fulton	Gloversville	Aug. 26	2	72	111	183	38.8	61.5	100.3	1,003	7.0	6.3	6.4
Genesee	Batavia	Oct. 7	2	72	144	216	34.7	56.7	91.4	914	4.1	4.5	4.4
Greene	Cairo	Nov. 11	2	22	98	120	15.7	97.5	113.2	432	3.2	3.8	3.6
Herkimer	Ilion	Oct. 21	2	163	235	398	110.8	190.8	301.6	3,016	2.7	2.6	2.6
Jefferson	Watertown	Aug. 26	2	66	155	221	35.7	85.1	120.8	1,208	4.3	4.7	4.6
Kings													
Lewis	Martinsburgh	Sept. 23	2	33	118	151	23.4	100.9	124.3	1,243	2.1	3.3	3.0
Livingston	Mt. Morris	Oct. 7	2	40	100	140	20.3	56.5	76.8	691	3.2	6.3	6.4
Madison	Morrisville	Sept. 23	2	28	81	109	17.3	40.5	57.8	578	1.1	2.7	2.7
Monroe	Spencerport	Oct. 21	2	69	163	232	32.9	80.2	113.1	1,131	3.7	5.0	4.6
Montgomery	St. Johnsville	Nov. 11	2	147	169	316	32.3	43.5	75.8	608	10.0	5.0	7.1
Niagara	Lockport	Oct. 21	2	80	180	260	43.1	84.8	127.9	1,279	6.3	5.9	6.5

Onesida	Rome, C. H.	Oct.	7.	88	186	874	40.0	121.3	167.3	1,673	7.5	6.6	6.9
Onesida	Canandaigua	Sept. 23	3	108	108	160	33.0	47.2	75.2	587	3.9	4.1	4.0
Ontario	Middletown	Aug. 13	43	107	140	305	31.7	63.9	98.9	587	3.4	3.7	3.5
Orango	Albion	Oct. 7	60	136	305	305	35.0	63.9	98.9	587	3.4	3.7	3.5
Orleans	Fulton	Oct. 7	108	206	305	305	71.3	163.6	267.9	587	4.9	4.9	4.9
Owego	Onondaga	Sept. 16	45	84	180	180	37.5	63.4	97.5	587	3.0	3.0	3.0
Owego	Onondaga	Sept. 16	18	36	44	44	15.3	20.5	35.8	179	6.0	10.0	11.3
Putnam	Brewster's Station	Sept. 30	30	86	116	116	14.1	41.4	55.5	588	19.6	10.8	13.7
Queens	West Sand Lake	Nov. 18	3	93	144	144	30.4	50.1	70.6	706	6.3	6.0	5.5
Kensel	Richmond	Sept. 9	45	54	79	79	23.4	47.6	71.0	365	38.3	8.4	13.8
Rockland	Piermont	Sept. 3	20	18	38	38	13.4	7.6	30.0	100	8.4	5.9	7.3
Saratoga	Saratoga Springs	Aug. 26	49	174	368	368	34.7	105.6	30.0	1,408	8.9	7.6	8.0
Schenectady	Schenectady	Nov. 11	36	83	108	108	13.1	44.4	57.6	575	7.3	4.8	5.4
Schoharie	Cobleskill	Oct. 21	97	119	316	316	41.0	56.6	97.6	976	4.3	3.0	3.6
Schoharie	Watkins	Sept. 23	41	91	133	133	30.3	47.3	67.6	744	3.0	6.5	5.4
Seneca	Ovid	Oct. 7	56	63	131	131	38.8	43.0	81.8	818	6.9	5.6	6.1
Seneca	Corning	Oct. 26	96	81	107	107	15.4	35.0	70.4	704	4.3	6.0	5.6
Stonewall	Riverhead	Oct. 7	43	93	135	135	34.6	41.6	60.1	601	8.6	6.8	7.3
Suffolk	Liberty	Sept. 23	51	111	163	163	18.0	53.3	77.3	873	8.5	3.9	4.9
Sullivan	Owego	Oct. 21	43	137	170	170	33.3	93.3	136.5	1,365	3.3	6.4	5.6
Tioga	Ithaca	Sept. 23	64	161	225	225	41.2	109.0	144.2	1,442	3.3	5.3	4.7
Tompkins	New Paltz	Aug. 13	36	55	81	81	20.7	38.5	59.3	593	19.0	7.0	10.8
Ulster	Warrensburg	Aug. 19	35	90	135	135	16.6	45.3	61.8	618	9.6	7.1	6.8
Warren	Whitehall	Aug. 13	54	41	54	54	6.3	25.5	31.7	317	9.8	4.1	5.5
Washington	Lynons	Sept. 30	93	224	336	336	59.7	143.6	203.3	3,033	3.0	3.7	3.5
Wayne	Pleasantville	May 30	60	60	90	90	17.6	39.7	60.3	301	18.0	8.7	11.8
Westchester	Perry	Nov. 4	43	66	103	103	30.8	43.7	60.5	605	1.5	0.8	1.1
Wyoming	Penn Yan	Oct. 21	63	63	130	130	39.7	45.3	85.0	850	4.0	4.0	4.0
Yates	C. H. near Versailles	July 29	4	37	31	31	3.3	19.3	31.4	314	4.5	1.5	1.9
Al and Cattaraugus													
Total			2,945	5,898	8,688	1,649.7	3,519.9	5,166.6	49,384	5.5	5.2	5.3	

TABLE No. 10.
STATISTICS of Indian Schools for the year ending September 30, 1872.

RESERVATIONS.	Number of districts.	Number of children between 5 and 21 years of age.	Average number of weeks school was taught.	Whole number of pupils registered during the year.	Average daily attendance.	Number of male teachers employed during the year.	Number of female teachers employed during the year.	Total number of teachers employed during the year.	Number of white teachers.	Number of Indian teachers.	Value of school-houses.
Allegany and Cattaraugus	17	950	33	800	580	6	18	24	11	13	\$2,300
Onondaga and Madison	2	47	33	29	8	..	2	2	2	..	800
Onondaga	1	118	34	58	17	1	1	2	2	..	900
St. Regis	2	274	40	63	18	..	2	2	2	..	500
Shinecock	1	43	32	35	19	1	1	2	1	1	800
Tonawanda	2	173	30	79	32	..	3	3	..	3	100
Tuscarora	2	169	36	118	32	..	2	2	2	..	1,600
Total	27	1,774	33.8	1,192	706	8	39	37	30	17	\$14,000

Table No. 10 — (Continued).

RESERVATIONS.	FINANCIAL.						
	REVENUE.			PAYMENTS.			
	Received from State.	Received from all other sources.	Total receipts.	For teachers' wages.	For building, purchasing, repairing school-houses.	For furniture, books and apparatus.	For all other incidental expenses.
							Total payments.
Allegany and Cattaraugus	\$4,876 40	\$1,300 00	\$6,176 40	\$4,088 92	\$539 62	\$455 98	\$1,150 88
Oneida and Madison	441 64	35 00	476 64	380 00	97 80	12 80	476 64
Onondaga	333 40	90 00	423 40	304 00	26 90	83 78	423 40
St. Regis	533 09	.....	533 09	500 00	7 00	.....	533 09
Shenecock	418 50	12 00	430 50	380 00	10 00	.....	430 50
Tonawanda	544 60	123 23	667 83	504 00	133 23	.....	667 83
Tuscarora	408 66	63 00	471 66	380 25	9 00	43 41	471 66
Total	\$7,554 20	\$1,622 23	\$9,176 53	\$6,947 17	\$736 05	\$645 06	\$1,658 94
							\$9,176 53

(A.)

NEW YORK INSTITUTION FOR THE INSTRUCTION OF THE DEAF AND DUMB.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

DEAR SIR.—In compliance with your request for information concerning this institution, it gives me great pleasure to state that, on the 30th of September, 1872, there were remaining in the institution five hundred and nine pupils, of whom two hundred and ninety-four were males and two hundred and fifteen were females. Of these, three hundred and twenty-nine were beneficiaries of the State of New York ; one hundred and thirty-one, of the counties in this State ; and thirty-three, of the State of New Jersey ; fourteen were supported by their parents or guardians, one by a scholarship known as the Frizzell fund, and for one no provision had as yet been made.

During the year preceding the date mentioned above, there was an average of three hundred and fifty-three State pupils, being three in excess of the number for which provision had been made in the appropriation bill ; and it is probable that, during the year ending October 1st, 1873, the number of State pupils will not fall far short of three hundred and fifty.

Of the fourteen pay pupils, but five are from the State of New York ; and of these, three are below the age of twelve, and one is above the age of twenty-five ; and therefore only one of the number would be eligible as a State pupil, if the education of the deaf and dumb were made free to all between the ages of twelve and twenty-five, now prescribed by law for indigent deaf-mutes. This shows that the State would lose very little if an amendment should be made to the school law of 1864, simply striking out the word "indigent" where it refers to the deaf and dumb. The argument in favor of this is that parents will delay bringing their children to the insti-

tution, and will seldom keep them there long enough to enable them to obtain a good education, if they are obliged to meet the expense. It is in the interests of the deaf and dumb, rather than in those of the parents, that I would plead with you to recommend that all restrictions of a pecuniary nature should be removed. I confess to much sympathy, however, with parents who have the mortification of being obliged to plead indigence before they can secure admission for their children, and to some regard for the credit of the State of New York, which ought not to be less enterprising and generous, in respect to the education of this unfortunate class of children, than Ohio, Indiana, Illinois, Michigan and other Western States, and most of the Southern States.

The number of teachers is twenty-nine, of whom eleven are ladies and eighteen are gentlemen. Of the ladies, seven can hear and speak; three can speak but cannot hear, and one is a congenital deaf-mute. Of the gentlemen, six can hear and speak; six can speak but cannot hear, and six are deaf and dumb from birth. This institution, established by act of the Legislature in the year 1817, has enjoyed a corporate existence of nearly fifty-six years, and is the oldest institution of a benevolent character in the State. Originally supporting its indigent pupils through private contributions, it has grown, since this burthen was assumed by the State, to be the largest school for the deaf and dumb in the world.

The year that has just closed has been one of continued prosperity. The health of the inmates has been good, only two deaths having occurred, one by an accident and the other as the result of a constitutional disease. The expenditures have not exceeded the receipts, and the various objects sought by the institution have been thoroughly accomplished.

The education imparted to the pupils has the three-fold purpose of developing their physical, intellectual and moral nature. Owing to the peculiar circumstances in which he is placed by his misfortune, the deaf-mute comes to the institution with no more acquaintance with language than an infant a few months old. The words and phrases by which thought

is expressed are entirely unknown to him. The beliefs, opinions and principles, which form a part of the mental constitution of his fellow men, have for him no existence. The laws by which other persons are deterred from the commission of crime, or which define the relations which they may properly hold toward each other, are for him as if they had never been enacted. In the hopes, aspirations and consolations of religion, he has no part. The past is to him a sealed book; the future, a blank page.

Received into the institution under these circumstances, he is introduced into an altogether new phase of existence. In the society of his fellows, he learns a language of gestures, addressed to the eye, whereby he soon obtains new ideas and a degree of mental development to which he has hitherto been a stranger. In the class-room, he is gradually taught the meaning and uses of words, and how to combine them into sentences. He learns to attach ideas to what he sees written or printed, and is thus enabled, by means of the pen, to receive and impart communications in language. All this is a very difficult undertaking, and has given rise to special processes which constitute the art of deaf-mute instruction.

In the more recent visits made by yourself to the institution, I think you have observed improvements in these processes, the effect of which has been to bring the pupil to a practical use of language at an earlier period of his course. In the class you visited in the month of November, you must have observed the surprising progress made by those who had been but two months under instruction. Not only were they able to write in a fair and legible hand, but they were able to obey a number of directions, written on the teacher's slate, in language involving the use of the article, noun, adjective, verb and preposition, and to state afterwards in writing what they and others had done; and all this without the use of a single gesture of explanation on the part of the teacher.

The improvement in method consists in leading the pupil to attach words directly to objects and actions, without the intervention of signs, so that he shall be made to think in

words from the first. It is the purpose of the principal to carry this idea as far as possible, and he is not without hope that he may be able to devise a course of instruction, whereby the sign language may be entirely excluded from the school-room. If he succeeds in accomplishing this, he will be able to furnish a series of lessons with such full directions, that any intelligent person gifted with a faculty for teaching, but not conversant with deaf-mute instruction, can commence and complete the education of a deaf-mute. This may lead to a distribution of the pupils among small and inexpensive establishments scattered about the State, under circumstances that will greatly reduce the expenditure at present necessary, and bring the pupils much nearer their homes.

The question is agitated among the directors whether the institution is not too large; and, under the advice of the principal, they propose to erect a new building in some rural locality where land is cheap, and place therein the children under twelve years of age, now supported by the counties, in entire separation from the older pupils.

The reasons, as stated in his report to the Board of Directors, are as follows: "The argument for this application of the principle of classification is the same that has led to the establishment of graded schools for hearing-children, and is especially applicable to an institution like this, which is a home as well as a school. The more homogeneous any community, the more simple, economical and effective the means by which it is united and controlled, and the greater the peace, quietness and happiness that exist among its members.

"In no two points can our smaller and larger children be said to be homogeneous. The former need to be looked after in every respect. Their supervision must be individual in its minuteness. They must be washed and dressed and tended with maternal care. The ailments to which they are liable must be anticipated and guarded against. The food must be purchased and prepared and served with special adaptation to their age and physical peculiarities. The hours of study and play must so alternate as never to produce fatigue of mind or

body. They must be amused at the same time that they are instructed. Even their religious services and instruction must be conducted in a different manner. Their attention cannot be compelled to connected remarks, nor can they follow a prayer that would properly express the sentiments and aspirations of their seniors.

"The older pupils, however, can be governed by general rules, and kept in order by a general system of supervision. They can, in a great measure, take care of themselves and their property. They can be assembled together for discourses that would weary their juniors, and can be instructed and delighted by means that would be a source of discomfort to the latter. They can, moreover, come under a system, which, for their age, is adapted to produce the best results; namely, so dividing the time that they can have a number of continuous hours in the best part of the day for regular and systematic instruction and study, while other hours can be devoted continuously to the acquisition of a handicraft by which they may support themselves when they leave the institution. The system, in fact, that benefits them most, is the system most injurious to the younger pupils.

"There are other considerations, however, which have a more important bearing upon the subject than those which have already been adduced:

"1st. It requires greater care to protect the younger children from those physical injuries which are apt to result from association with older children. The larger boy, if circumstances favor impunity, even if not of a depraved disposition, may abuse a smaller one, especially if the latter has given him cause of annoyance.

"2d. There is also danger where both classes of children are in the same school, that the younger, when found capable of keeping up with the older ones in their studies, will be placed in the same class-room with them, and thus gain a premature intellectual development at the expense of their physical.

"3d. It is in its moral aspect, however, that the most serious objections to the association of the two classes of pupils are

to be discovered. The younger boy is apt to imitate only that which is rough and unmannerly in the older one, without being able to adopt the more manly qualities which might form a partial compensation. The younger must be established in the habit of obedience and right conduct, while the older must be confirmed in principle, and trained to act from higher motives.

"There is yet another point of view, from which this whole subject may be regarded. I allude to the stimulus which is given to the mind by completely changing all its associations. If a child should enter the institution at the age of six, and remain until he is twenty, as is quite possible under existing laws, he would have a long monotonous life in school, unrelieved by any change, while he would be less likely to be cured of habits that needed correction, or aroused from listlessness into which he might sink, than if at some point in his long career he started, as it were, *de novo*, under a different body of teachers, and a different set of regulations, as well as amid new surroundings.

"The connection existing between the two schools, by reason of their being under the control of the same board of directors, would be such as to benefit both. The system of instruction pursued in the school for the younger children would be directly preparatory to the one intended for the older children, and the latter would be raised to a higher plane by having so much elementary work accomplished in advance."

During the year, the attention of the principal has been repeatedly called to a system introduced by Prof. A. Graham Bell, into the institutions for the deaf and dumb in Hartford, Connecticut, and in Northampton and Boston, Massachusetts, for the purpose of giving to the deaf and dumb the power of correct enunciation. He has accordingly visited these institutions and subjected the method to a searching examination.

This system, to which its author has given the name of "visible speech," consists in suggesting to the mind, through the eye, by symbols, the different organs concerned in the utterance of particular sounds, and forms an independent basis

of phonetic writing, adapted alike to all languages, and enabling any person familiar with it to pronounce correctly, at sight, any sentence in any language when properly written in those characters.

The ordinary method of teaching the deaf and dumb to speak has been denominated the method of imitation, and consists in teaching the deaf-mute directly, without the intervention of symbols to pronounce, first, the powers of the letters, and, after that, their combination in syllables. In this way the pupil learns to recognize, by looking at the lips of his teacher, what he is taught to utter for himself.

Prof. Engelsman, who, for several years, has been connected with our own institution, is the great exponent of the last named system on this side of the Atlantic. Under his direction, articulation and lip reading have been successfully taught to about fifty of our pupils, or one-tenth of the whole, which represents the proportion who are capable of being benefited thereby without seriously subtracting from the time required to enable them to gain a good knowledge of written discourse.

A careful comparison of these two rival systems of teaching articulation to the deaf and dumb has, as yet, failed to convince me that Professor Bell can produce the more exact and satisfactory results. I shall follow, with great interest, the development of his system, and if I perceive that it is accomplishing superior results, I shall unhesitatingly recommend its adoption. It would be unwise for us to make experiments in that direction now, when it is receiving such a fair trial elsewhere, especially as Prof. Bell makes a charge of \$500 to each person whom he indoctrinates into his system.

It should be observed, however, that articulation is not, of itself, a system of education, nor, like the sign language, a means to an end, but is simply an incidental advantage given to a deaf-mute whereby he may give expression to the English language after he has mastered the language.

The classes of deaf persons who can be benefited by instruction in articulation are ;

1st. Semi-mutes who, having heard and spoken before losing their hearing, have still a mental ear and a mental speech, even though, from the circumstance of their deafness, their pronunciation has become very defective. The correction of this pronunciation, and the bestowal of an ability to recognize words by watching the lips of a speaker, are very important objects to be sought, and should never be neglected.

2d. Deaf-mutes, in whose case a partial degree of hearing exists, though not sufficient to enable them to acquire language through the ear. In their case, this low degree of hearing is of use in giving them an idea of voice.

3d. Peculiarly intelligent congenital deaf-mutes, whose perceptive faculties are very highly developed.

For all others, the attempt to teach this acquirement is time uselessly taken from that needed to acquire a knowledge of the language itself. This, as has already been remarked, is the direct and paramount object of instruction in the classroom. Give a deaf-mute a mastery of alphabetic discourse, and you give him the key to all knowledge; you enable him to stand on equal terms with all who can read and write.

In connection with this acquisition, however, all the pupils have a course of instruction in geography, Scripture history, the history of the United States, general history and arithmetic, and most of them obtain a good knowledge of accounts. In the High Class, which is selected from those capable of making higher attainments, are studied algebra and geometry, natural philosophy, astronomy and chemistry, mental and moral philosophy, and grammar, rhetoric and logic. Latin, as a foundation of etymology, a means of comparing grammatical forms, and a device for improving style by the processes of translation, is also taught to a selected few.

Great attention is paid to forming a good moral character in our pupils, and establishing in their minds principles of rectitude. The general laws affecting crime are explained, and an elementary idea is given them of the rights of property. They are also taught those fundamental points of religion in which all denominations of Christians agree, but

they do not receive a bias toward any particular form of worship and belief; and, hence, pastors of both the Roman Catholic and the Protestant faith find in our pupils a foundation on which they can severally build the superstructure of their own peculiar tenets.

While the pupils are thus intellectually and morally developed, they receive also a mechanical education whereby they may support themselves when they leave the institution. The boys, if of sufficient age, spend three consecutive hours daily under skillful artisans, who instruct them in tailoring, shoe-making, cabinet-making and horticulture. Within a short time, printing has been added to the list, and will be a valuable resource for quite a number. The girls, besides learning different branches of household work, are taught plain sewing, tailoring, dress-making and the art of operating on the sewing-machine.

The arts of design have also been lately introduced, for both boys and girls, under the skillful tuition of a graduate of the institution, who spends three hours a day with successive classes, and two hours with a special class of both boys and girls selected from the most gifted.

From what has been said, it will be perceived that the benighted, irresponsible and often dangerous deaf-mute is transformed, under the beneficent influences of the institution, into an intelligent, accountable, peaceful, law-abiding, self-supporting citizen, capable of sustaining his part in the relations he bears to his fellow-men. In this view, the benevolence to the individual is lost sight of in the benefit to the State, which, in furnishing the means for this special education, provides for its own security in the evil it averts, and receives back more than it gives in the good it effects. The sustaining of such an institution is, therefore, to be regarded in the light of duty rather than of charity.

I cannot close this statement without adverting to an event which, while it affects the institution directly, is regarded as a calamity by all who are interested in the cause of deaf-mute education throughout the country. I allude to the death of

my father, Dr. Harvey P. Peet, on the first of January last, after a connection of forty-two years with this institution. Five years ago he retired from the active duties of principal, which, as vice-principal, I had shared with him for the sixteen preceding years, but he retained a nominal connection with the office, under the title of Principal Emeritus. As a member of the Board of Directors, of which he was at one time for ten years the president, he contributed to the last to the welfare of the institution. His counsel to myself, and the earnest solicitude he manifested for my success, gave me both assistance and encouragement in the arduous labors I assumed when he vacated his post.

His contributions to the literature of the profession have been more numerous and important than those of any other man that has ever been connected with it. The course of instruction he prepared has been used in every institution for the deaf and dumb in this country; and the teachers whom he has trained, and inspired with his own enthusiasm and devotion, have further extended his personal influence, by accepting the post of principal in very many of the states of the Union.

Very respectfully,
Your obedient servant,

ISAAC LEWIS PEET,
Principal.

February 18, 1873.

(B.)

ALLEGANY AND CATTARAUGUS INDIAN
RESERVATIONS.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—I confess to a feeling of satisfaction in being able to report a degree of progress by the pupils in the Indian schools upon these reservations during the past year, commensurate with expectations. The average attendance was much better, and the children were far more regular in coming together at the morning session. This is attributable, in a great measure, to the increased interest among the Indian people in regard to the importance and advantage of having their children receive the fullest possible benefit from these schools. Heretofore the parents have not generally seemed to care whether their children attended the schools or not.

This most desirable change I attribute largely to the influence of the evening lectures, during the institutes held, for the benefit of teachers, at the Indian council house during the two preceding summers, addressed directly to the parents, with a view of enlightening them upon their relations to the schools and their duty to their children in the matter of education. In their results I cannot but consider these lectures one of the best features of the institute, and if continued, as I think they should be, I would recommend the plan of devoting each evening to plain practical talks to the people at different points, so as to reach the largest possible numbers.

These institutes have also exerted a marked improvement upon the character of the teaching in the schools, and I cannot too highly commend the willingness and faithfulness which characterized the teachers previously employed, in adopting the new methods taught them by their institute instructors.

At the asylum school, I employed, as an experiment, two normal graduates, a principal and assistant, with the under-

standing that they were to use the object system. Their work has been so satisfactory, the same principal and a normal assistant have been employed during the present year. A normal graduate is also teaching in School No. 5, on the Cattaraugus reservation, the most advanced of the Indian schools, with pleasing results.

In teaching, as in all other vocations, to be successful, the means used must be adapted to the nature of the material with which you have to deal. It is a matter of history and experience, that different races have their distinctive phases of character. This is peculiarly so with the Indian; his apparently natural, stolid indifference to intellectual matters cannot be overcome by any appeal to the intellect or mind, except through the senses. It is because of this feature, that the object-method is so peculiarly fitted for these schools. I would, therefore, recommend a more general introduction of small globes and numeral frames, both of which are greatly needed in nearly all of the schools, and of other modern simple contrivances for the aid of the teacher; and also a continuation of institute instruction. Instead, however, of a two weeks' institute, as heretofore, I am of the opinion that an institute for one week, with the understanding that no teacher, unwilling to attend its sessions regularly, would be employed in the schools, would be more likely to accomplish the desired results. I would further suggest the expediency of the Department paying for the transportation of teachers to this institute from the Tonawanda and, perhaps, other reservations more remote. In doing this, those schools would also be benefited, equally with those on the Cattaraugus and Allegany reservations, without the expense of, what is probably impracticable, a separate institute.

The plan of requiring teachers of Indian schools to attend the usual county institutes instead, as some suggest, would be decidedly objectionable, because of the difference of teaching required in our common schools and the Indian schools, which are as unlike as are the two races—Caucasian and Indian.

Because of this, the instructor of the institute should be expected to first visit the schools while in actual session, and thus, in some measure, acquaint himself with their peculiarities and condition, and the special wants of scholars and teachers. It was largely because of such visitation on the part of Prof. H. R. Sanford, of the Fredonia Normal School, as he admits, that the institutes of last summer, and of the preceding year, which he conducted, were so successful.

The time of opening the schools has been changed from May to the last Monday in March or the first Monday in April, and from November to the first Monday in October, each term continuing sixteen weeks, except at the Asylum, where school is maintained forty weeks, divided into three terms arranged for the convenience of the Asylum superintendent. The change avoids the "blackberry season" and the extreme heat of summer, and a portion of the severest weather of winter, and is an admitted improvement. In several of the schools on both reservations, the improvement made was both encouraging and unexpected, and clearly demonstrated the capacity of the Indian mind for education when properly conducted.

In my report for 1871, I referred to the erecting of a school-house in district No. 1, Cattaraugus reservation, partly by Indian contributions. Last spring it was sufficiently completed for occupation during the summer term, and is creditable to the enterprise of the Indian people of the district.

In conclusion, I would recommend that the plan of having the Indians keep their school-houses in repair, so far as is practicable, without State aid, be continued. In some of the districts, as Nos. 2 and 6 on the Allegany reservations, and No. 10 on the Cattaraugus reservation, the interest of the people is not, as yet, sufficient to expect it. In the majority of the districts, they are able to assist in the expense of maintaining the schools, and will do so rather than have them dispensed with. Too much assistance is a curse rather than a blessing. The true plan is that happy medium (if

it can be found) which will stimulate the recipients to self-exertion.

For statistical information, see table No. 10 in the appendix.

Respectfully,

C. E. BENTON,

Late Superintendent of Indian Schools.

FREDONIA, February 14, 1873.

(C.)

ONEIDA AND MADISON INDIAN RESERVATION.

HON. ABRAHAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—I beg leave to submit the following report of the condition of the schools for the Oneida Indians. During the year ending September 30th, 1872, school was maintained on these reservations for a period of thirty-three weeks.

The whole number of children between the ages of five and twenty-one, residing on the reservation, is forty-seven; and the whole number of pupils, registered as attending school some portion of the year, is thirty-nine.

The daily attendance is not what it should be. A portion of the pupils are quite regular at school, and make good progress in their studies. The school-houses and apparatus are in good condition. I would recommend a continuance of your liberal policy with these schools.

Respectfully yours,

N. L. TILDEN,

Superintendent Oneida Indian Schools.

(D.)

ONONDAGA INDIAN RESERVATION.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In obedience to the requirements of your Department, “that a written statement showing the condition of the schools under my charge should be sent to you by the 15th of December in each year,” I submit the following :

The Onondaga Indians have had the advantages of a school only about twenty-five years, and during much of that time but a small part of the tribe have sent their children to school.

This tribe has long been divided into three factions : 1st. Pagans, comprising about half of the population, who have generally opposed schools, and kept up the customs and festivals of the ancient Onondagas. 2d. The Methodist Episcopal Christian party, who have generally sent their children to the State school, more or less irregularly. 3d. The Wesleyans (formerly), who of late have become merged with the attendants upon the Protestant Episcopal Mission Church, and who have withdrawn some of their children from the State school, and send them to a parochial school under church care.

The existence of these two schools near each other, each scantily furnished with scholars, and under patrons and parents who are more or less hostile to the opposing school, has a depressing effect upon education among the pagan portion of the tribe. There may be children enough to give employment to two teachers, but they should both be under the same supervision, and not be employed in rival schools jealous of each other.

Three hundred Indians, of whom one-half abjure Christianity and books, are here made the victims of (perhaps well intended) sectarian zeal, and the schools suffer from the scramble.

The State school had been established more than twenty years before its rival started, and the two should be harmon-

ized under State care; nor should two Christian sects clash with each other over so meagre a catch of possible converts, the effect of their rivalry being to strengthen paganism in the tribe. The State school has done the Onondagas good, and could more children be brought to attend it, the tribe would be better for it.

I have not dwelt in this report upon the subject of Indian nationality, or petty tribalism, as an effectual hindrance to the elevation and advancement of this tribe, having mentioned it in so many former reports, and urged reasons for its discontinuance, and the substitution in its place of tax-paying, responsible citizenship.

I remain your obedient servant,

J. KNEELAND,

Superintendent of Indian Schools.

SOUTH ONONDAGA, Dec. 8, 1872.

(E.)

ST. REGIS INDIAN RESERVATION.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In compliance with your request, I submit the following statement in respect to the schools upon the St. Regis reservation : The school-houses are in bad order ; No. 1 needs re-shingling and No. 2 re-siding. In both cases privies are needed, which I intend to build as soon as convenient.

The condition of the schools and the progress of the pupils are not encouraging. The children are irregular in attendance, often remaining away from the school for weeks at a time. Some attend only in the summer, and it is a common thing for pupils to come to school as late as ten and eleven o'clock in the morning. They cease to attend school when fourteen or fifteen years of age.

Parents appear to have but little control over their children or regard for their welfare. The Indians are a wandering race, indolent and shiftless, and do not improve in any respect, unless it is in dress, of which the young girls and boys, especially, are very fond, and in which they endeavor to imitate the whites.

Your obedient servant,

HENRY BERO,

Superintendent of Indian Schools.

HOGANSBURGH, Nov. 29, 1872.

(F.)

SHINECOCK RESERVATION.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—I would respectfully make the following report concerning the Indian school on the Shinecock reservation, for the year ending September 30th, 1872 :

The whole number of children on the reservation and belonging to the tribe, between the ages of five and twenty-one years, was forty-three. The whole number of pupils registered as having attended school some portion of the year is thirty-five, and the average daily attendance nineteen. The school has been taught thirty-two weeks during the year.

Although the number of children residing upon the reservation, during the past year, is not as large as that of the preceding year, it will be seen by a comparison with my last report that the average attendance is considerably larger.

There is every indication that the members of the tribe fully appreciate the importance of educating their children, and they eagerly avail themselves of the privileges afforded them through the just liberality of the State which extends to them gratuitously the opportunity for intellectual improvement.

At the request of the trustees of the tribe, who are *ex officio* trustees of the school, I employed a female member of the tribe to teach the summer school. The school, since its organization up to that time, had been taught exclusively by white teachers.

The experiment was eminently successful; the teacher, being thoroughly familiar with the characteristics of the pupils, and in full sympathy with the tribe, manifested an earnest desire to improve those under her charge. I think that it is advisable in all cases to select teachers from the tribe, when competent persons can be found who will accept the position.

The school-house and the adjoining buildings are in good repair. The interior of the school building has been thoroughly renovated during the past summer.

The Indians take commendable pride in having the school-house neat and attractive in appearance, and have always manifested a willingness to contribute their own labor whenever it became necessary to make any improvement either upon the buildings or grounds.

Very respectfully,

GILBERT J. RAYNOR,

Superintendent Shinecock Indian School.

EAST MORICHES, Dec. 10th, 1872.

(G.)

TONAWANDA INDIAN RESERVATION.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—The undersigned, superintendent of Indian schools on the Tonawanda reservation, in addition to the statistical statement made and forwarded the 17th of September last, would respectfully submit the following report:

The two schools on this reservation have been taught nearly the usual length of time, during the past year. In the early

part of last fall, I urged the Indians to repair the old houses and have them ready for the winter term. But very few Indians would even promise to help, and I found, on inquiry, they were much divided, and that sharp contentions were frequent in their councils, among their leading men. I still press the subject upon them, that they do something for themselves towards the improvement of their school-houses, and have also assured them that when they are ready to do their part, they will receive the necessary assistance in building one or two new houses, in case the labor school is not established.

I understand the subject has been considered in their councils, and that some of the old chiefs became so excited over the subject, that they opposed all schools, and recommended the stopping of the present schools and a return to their old Pagan rule and worship.

I soon ascertained that the trouble and divisions were such that it was impossible to get them to do anything, and, rather than let the schools finally stop, I resorted to the Quaker fund sent to help maintain the schools, and employed workmen to make needed repairs. In one house I took up the old seats, mended the floor and repaired the windows, and put in new seats and desks of modern pattern. In the other house, the windows and plastering were repaired, and a new stove was placed, the entire expense amounting to nearly \$100.

It is now thought by that portion of the Indians, interested in religion and schools, that as long as the office of "chief" is kept up in their tribe, no considerable improvement can be made; and some of them are making an effort to do away with the office of "chief," and be ruled as they say they are on the Cattaraugus reservation. They think, if they could get a vote upon the question, they would have, at least, a majority of twenty-five.

This fall, at their annual fair, their exhibitions of all kinds of grain and vegetables were very good. The floral hall was nicely decorated by the women. Choice fruits, bead work, and almost everything usually exhibited at county fairs, were there in good order; also the display of farming utensils, poultry

and stock, was very commendable. Intemperance seems to be the great curse of the Indians. In grain-growing, stock-raising, and in most respects, I think they are improving as fast as could be expected under the circumstances.

All which is respectfully submitted.

H. CUMMINGS,
Superintendent.

Dated AKRON, Dec. 2, 1872.

(H.)

TUSCARORA INDIAN RESERVATION.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The undersigned, superintendent of Indian schools on the Tuscarora Indian reservation, respectfully submits the following report in relation to the expenses and condition of the schools for the year ending September 30, 1872 :

The whole number of children of school age, residing on the reservation, is one hundred and seventy-two. The whole number attending school some portion of the year was one hundred and eighteen, an increase of seven over the preceding year ; and the average daily attendance, at both the schools located on the reservation, forty-four, or a little more than one-fourth of all the children of school age. When we take into consideration the fact that Indian children seldom go to school before they are six or seven years old, and usually leave by the time they are fourteen or fifteen, I think the attendance is creditable.

Miss Peck taught school forty weeks in district No. 1, and received \$250. She will remain there another year, if her health permits. She is an excellent teacher, and it would be difficult to supply her place for any such pay as she receives.

Miss Libbie Pletcher taught in district No. 2, thirty-two weeks, and received \$160. She succeeded well as a teacher, and the Indians were well satisfied with her services, but she declined to teach longer, and Miss Mary McMaster takes her place for the winter term at \$6 per week.

It will be seen by the above that the State has paid for teachers' salaries, during the year, \$410. The cost of books, stationery and superintendence, amounts to \$89.41, making the whole cost to the State \$499.41. The Indians willingly furnish fuel and do some little repairs on the buildings, but they seem to think that nothing more ought to be required of them.

The general condition of the Tuscaroras is much better than it was a few years ago. Their buildings are better, and they work their land better, and are much less given to idleness and intemperance. As I visit the schools from time to time, I can see that the children improve as fast as could be expected of those that not only have their lessons to learn, but our language also ; for it is a fact that most of them, when they enter school, are unable to speak one word of English. As a specimen of what some of them are doing, I send a copy-book written by an Indian girl thirteen or fourteen years old. It was taken from Miss Peck's school, and she has several more quite as good.

After seven years of experience with the Tuscarora schools, and watching closely the improvement of the pupils and the general advancement of the people, I think the State could not spend the same amount of money for a better purpose.

Your obedient servant,

R. STOCKWELL,

Superintendent of Indian Schools.

WILSON, Nov. 30, 1872.

(I.)

THOMAS ORPHAN ASYLUM.

HON. ABRAHAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The trustees of the Thomas Asylum for Orphan and Destitute Indian Children respectfully beg leave to report to you the condition of the asylum for the year ending September 30, 1872.

The number of children reported in the institution at the close of last year was eighty-nine. Six were then discharged, leaving, to commence the current year, eighty-three, of whom seventy-one remained through the year. There were received during the year twenty-seven, making the total number one hundred and ten, of whom sixty-four are boys and forty-six are girls. Of these, fourteen have been discharged, leaving the number at the close of the year ninety-six, of whom fifty-three are boys and forty-three are girls. The average for the whole year is 91.7.

The financial statistics for the year are as follows :

RECEIPTS.

From annuities of Indian children	\$266 52
From board of teachers and others.....	93 85
From articles sold and labor performed	39 58
From donations.....	7 00
From the State of New York for support of children	7,608 64
From share of general appropriation to incorporated asylums	459 60
From U. S. Indian department	1,000 00
From cash in hands of treasurer at the end of last fiscal year.....	517 16
Total	<u>\$9,992 35</u>

DISBURSEMENTS.

For meat	\$339 19
For bread and breadstuff.....	1,617 71
For groceries and other provisions.....	563 16
For clothing	615 18
For labor, including salaries of superintendent and matron	2,428 12
For house furnishing and repairs	689 98
For fuel and lights.....	108 08
For tools and blacksmithing.....	141 29
For stock and feed for stock	191 45
For rent of land, seeds and manure.....	65 38
For traveling expenses.....	54 54
For medical and funeral expenses.....	118 68
For stationery and postage	10 65
For permanent improvement.....	3,369 70
For exchange.....	1 60
For insurance	214 25
For fencing	125 00
For unclassified items	70 80
For cash on hand	6 84
Total	<hr/> \$10,731 55
Of which remains unpaid.....	739 20
Which being deducted leaves total, as before,	<hr/> <hr/> \$9,992 35

In making these statements the trustees would gratefully recognize that providential care which has preserved the lives of all these children, and shielded them from fatal accident and from all attacks of epidemic disease during the year under review. This latter point is the more noticeable, inasmuch as small-pox, the so-called spotted fever, and cholera infantum, diarrhoea and dysentery have prevailed extensively in the surrounding country. Probably the exemption from the latter class of diseases is attributable to important sanitary measures about to be mentioned, as these constitute the chief

known points of difference between the condition of these children and that of others among whom these diseases have been very prevalent, and, among the white people especially, very fatal.

At the close of last year's report, it was stated that certain permanent improvements were in progress, of which a full account would be given in the report for the next year. These improvements having been completed, the trustees desire to make the briefest explanation consistent with this promise.

In seeking to practice the highest degree of economy in carrying on the institution, it had been determined to bore for gas as the cheapest practicable means of furnishing fuel and lights, good illuminating and heating gas being known to be abundant in the rock underlying all this region. The valley of the Cattaraugus, in which the asylum is situated, has been formed by the erosion of this rock, which crops out along the creeks on each side of the asylum, and was supposed to form the floor of the valley at a slight depth beneath the surface. Selecting the place most convenient for all the anticipated uses of the gas, operations were commenced by driving cast iron pipe into the soil, expecting, after a few joints had been driven, that each successive joint would be the last required to reach the rock, until at a depth of 220 feet a powerful stream of very pure water forced itself up through the pipe and arrested the driving. It was at once seen that if this stream should prove permanent, it would be of far greater value to the asylum than the attainment of the original object; for, in the first place, there was no living water upon the premises, the only supply having been obtained from wells, of which there were four in number, from thirteen to twenty feet in depth, in a soil so gravelly that it was impossible to escape contamination from the surface.

A second consideration was, that, in so flat grounds, and where so large a mass of humanity was congregated continually, the amount of effete animal matter mingling with the soil and carried down through the gravel, must of necessity,

sooner or later, so poison the water as to produce injurious, and ultimately, to a greater or less extent, fatal effects upon all who might be compelled to use it. These evil effects had already begun to attract attention, and to occasion much anxiety relative to the future prosperity of the institution.

A friend from New York city had already given sixty dollars towards defraying the expense of introducing pure water into the building, and search had been made on every side where springs were to be found sufficiently elevated to admit of being brought into the building, but none could be discovered yielding permanently the necessary quantity of water, except one at so great a distance, and with so many obstacles to be overcome, that the expense would have been several thousand dollars, and the quality of the water what is termed very hard.

Happily this artesian well was all that could be desired as to both quantity and quality; and, having waited long enough to become satisfied of its permanence, the boring for gas was relinquished, a hydraulic ram procured, and the water introduced into the attic of the main building whence it is distributed to every place where it is needed, the wastage from the ram being conducted into the pasture and furnishing a living stream sufficient to meet all of the requirements of the cattle kept upon the premises.

All of which is respectfully submitted.

LEWIS SENECA, *President.*

E. M. PETTIT, *Treasurer.*

B. F. HALL, *Clerk.*

(J.)

**SIXTH ANNUAL REPORT OF THE LOCAL BOARD
OF THE STATE NORMAL AND TRAINING
SCHOOL AT BROCKPORT.**

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The Local Board of the State Normal and Training School at Brockport, N. Y., in the county of Monroe, pursuant to the requirements of section 3d of the Laws of the State of New York, passed April 7, 1866, entitled "An act in regard to Normal Schools," hereby transmit to the Legislature of the State of New York, through the Superintendent of Public Instruction, the following report of the condition of said School for the year ending December 31, 1872 :

I. BUILDING AND GROUNDS.

The special appropriation of the year 1872, amounting to the sum of \$3,000, has been expended in necessary repairs to the building and grounds. The unfinished rooms in the fourth story have been completed, and circular stairs built from the third story to the fourth. Most of the rooms have been newly painted and papered, and only ordinary repairs will be needed for some time to come.

II. OTHER PROPERTY.

Library and apparatus have been increased during the past year by the purchase of books and apparatus to the amount of \$882.48, the items of which are set forth in the accompanying financial report.

III. VALUATION.

The estimated value of property on 31st day of December, 1872, is as follows:

Value of building.....	\$110,000 00	
" grounds.....	15,000 00	
	<hr/>	\$125,000 00
" furniture, same as last year.....	5,795 56	
Library and apparatus, reported		
last year.....	\$9,936 54	
Added	882 48	
	<hr/>	10,819 02
Total.....		<hr/> <hr/> \$141,614 58

IV. FINANCIAL REPORT FOR THE YEAR ENDING SEPT. 30, 1872.

No. 1.—NORMAL DEPARTMENT.

1871.	Receipts.	Dr.
Oct. 1,	To cash on hand.....	\$0 99
Oct. 21,	To cash from State Treasurer on warrant of Superintendent of Public Instruction.....	8,091 77
Oct. 21,	To cash from State Treasurer "	2,775 98
Dec. 1,	To cash from State Treasurer "	1,884 28
Dec. 1,	To cash from State Treasurer "	17 99
Dec. 11,	To cash from State Treasurer "	1,649 88
1872.		
Jan. 18,	To cash from State Treasurer "	1,784 98
Feb. 15,	To cash from State Treasurer "	1,572 00
March 18,	To cash from State Treasurer "	1,572 00
April 15,	To cash from State Treasurer "	1,502 00
April 15,	To cash from State Treasurer "	70 00
May 16,	To cash from State Treasurer "	1,572 00
June 8,	To cash from State Treasurer "	1,575 30
July 2,	To cash from State Treasurer "	1,766 22
Aug. 10,	To cash from State Treasurer on warrant of Comptroller.....	1,108 75
Sept. 19,	To cash from State Treasurer on warrant of Comptroller.....	1,459 59
		<hr/> <hr/> \$28,848 58

1871.	Disbursements.	Cr.
October 25,	By paid Warren Millard for lime.....	\$17 50
October 25,	By paid C. D. McLean, salary.....	250 00
October 25,	By paid C. D. McLean, postage, and expenses to Fredonia.....	81 77
October 25,	By paid F. B. Palmer, salary.....	180 00
October 25,	By paid H. G. Burlingame, salary.....	140 00
October 25,	By paid W. H. Lennon, salary.....	140 00
October 25,	By paid Mrs. W. C. Sylla, salary.....	120 00
October 25,	By paid C. M. Chriswell, salary.....	70 00
October 25,	By paid Miss N. L. Jones, salary.....	90 00
October 25,	By paid Miss C. Roby, salary.....	70 00
October 25,	By paid Miss M. J. Thompson, salary.....	70 00
October 25,	By paid Miss J. E. Lowery, salary.....	60 00
October 25,	By paid Miss E. Richmond, salary.....	60 00
October 25,	By paid Miss S. M. Efner, salary.....	60 00
October 25,	By paid Miss M. A. Cady, salary.....	60 00
October 25,	By paid James Knox, salary.....	48 00
October 25,	By paid Miss F. C. Barnett, salary.....	80 00
October 25,	By paid R. J. Gordon, salary.....	24 00
October 25,	By paid W. Knowles, janitor.....	50 00
October 25,	By paid Ivison & Co., books.....	109 16
October 25,	By paid C. Scribner & Co., books.....	52 50
October 25,	By paid Gas Co., gas.....	44 10
October 25,	By paid A. S. Hamilton & Co., locks, etc.....	84 84
October 25,	By paid A. K. Franklin, trucking.....	7 44
October 25,	By paid Luter Gordon, coal.....	1,027 50
October 25,	By paid Luter Gordon, lumber.....	586 85
October 26,	By paid Thomas Spellman, plastering.....	15 75
October 26,	By paid H. N. Beech, printing.....	9 20
October 26,	By paid A. D. Mahon, printing.....	48 75
October 26,	By paid O. B. Avery, express.....	10 80
October 26,	By paid Brainerd & Wells, hardware.....	61 13
October 26,	By paid Brainerd & Wells, roofing, nails, etc.	1,547 08
October 26,	By paid Whitney & Co., cloth for stereopticon...	2 25
October 26,	By paid W. H. Fuller, painting.....	665 00
October 26,	By paid S. Ketner, Van Slyke's order for work ..	15 50
October 26,	By paid J. A. Latta, Van Slyke's order for work ..	6 00
October 26,	By paid D. Holmes, Van Slyke's order for work ..	21 50
October 26,	By paid D. Holmes, Fuller's order for work	25 00
October 26,	By paid D. Holmes, for drawing contracts.....	2 00
October 28,	By paid Patrick Koen, work.....	80 00
October 28,	By paid J. C. Van Slyke, work.....	17 38
Dec. 4,	By paid J. Pendergast, work.....	6 49
Carried forward.....		\$5,860 59

Brought forward.....		\$5,800 59
Dec.	6, By paid Chas. D. McLean, salary	250 00
Dec.	6, By paid F. B. Palmer, salary	180 00
Dec.	6, By paid H. G. Burlingame, salary.....	140 00
Dec.	6, By paid W. H. Lennon, salary.....	140 00
Dec.	6, By paid W. C. Sylla, salary	120 00
Dec.	6, By paid Miss N. L. Jones, salary.....	90 00
Dec.	6, By paid Miss C. M. Chriswell, salary.....	70 00
Dec.	6, By paid Miss C. Roby, salary	70 00
Dec.	6, By paid Miss M. J. Thompson, salary	70 00
Dec.	6, By paid Miss S. M. Efner, salary.....	60 00
Dec.	6, By paid Mrs. M. A. Cady, salary.....	60 00
Dec.	6, By paid Miss E. Richmond, salary	60 00
Dec.	6, By paid Miss J. E. Lowery, salary	60 00
Dec.	6, By paid Mr. J. Knox, salary.....	48 00
Dec.	6, By paid Miss K. Brennan, salary	87 50
Dec.	6, By paid Miss F. C. Barnett, salary	80 00
Dec.	6, By paid R. J. Gordon, salary	24 00
Dec.	6, By paid Wm. Knowles, janitor	50 00
Dec.	6, By paid Gas Company, for gas.....	41 85
Dec.	6, By paid Underhill & Co., Pendergast's order	11 50
Dec.	6, By paid Brainerd & Wells, repairing roof.....	215 25
Dec.	6, By paid Wm. H. Benedict, brooms, etc.....	33 14
Dec.	8, By paid R. W. Millard, cartage and freight.....	19 70
Dec.	9, By paid C. D. McLean, expenses to Oswego	9 00
Dec.	9, By paid J. D. Shears, trucking.....	18 60
Dec.	9, By paid F. B. Palmer, expenses to Utica.....	5 84
Dec.	15, By paid Gas Company, gas	65 08
Dec.	15, By paid C. D. McLean, salary	250 00
Dec.	15, By paid F. B. Palmer, salary	180 00
Dec.	15, By paid H. G. Burlingame, salary... ..	140 00
Dec.	15, By paid W. H. Lennon, salary.....	140 00
Dec.	15, By paid Mrs. W. C. Sylla, salary.....	120 00
Dec.	15, By paid Miss N. L. Jones, salary.....	90 00
Dec.	15, By paid Miss C. M. Chriswell, salary.....	70 00
Dec.	15, By paid Miss J. E. Lowery, salary	60 00
Dec.	15, By paid Miss C. Roby, salary.....	70 00
Dec.	15, By paid Miss M. J. Thompson, salary	70 00
Dec.	15, By paid Miss S. M. Efner, salary.....	60 00
Dec.	15, By paid Miss E. Richmond, salary	60 00
Dec.	15, By paid Miss M. A. Cady, salary	60 00
Dec.	15, By paid Miss K. S. Brennan	50 00
Dec.	15, By paid Mr. J. Knox.....	48 00
Dec.	15, By paid Miss F. C. Barnett, salary	80 00
Carried forward.....		\$9,838 00

Brought forward.....	\$9,383 00
Dec. 15, By paid R. J. Gordon, salary	24 00
Dec. 15, By paid Wm. Knowles, salary.....	50 00
Dec. 15, By paid O. B. Avery, express.....	12 80
1872.	
January 24, By paid M. E. Baker, telegraphing and postage..	18 77
January 24, By paid C. D. McLean, salary.....	250 00
January 24, By paid F. B. Palmer, salary.....	180 00
January 24, By paid H. G. Burlingame, salary	140 00
January 24, By paid W. H. Lennon, salary.....	140 00
January 24, By paid Mrs. W. C. Sylla, salary.....	120 00
January 24, By paid Miss C. M. Criswell, salary.....	70 00
January 24, By paid N. L. Jones, salary	90 00
January 24, By paid Miss C. Roby, salary	70 00
January 24, By paid Miss M. J. Thompson, salary.....	70 00
January 24, By paid Miss S. M. Efner, salary.....	60 00
January 24, By paid Mrs. M. A. Cady, salary.....	60 00
January 24, By paid Miss E. Richmond, salary.....	60 00
January 24, By paid Miss J. E. Lowery, salary.....	60 00
January 24, By paid Miss K. S. Brennan, salary.....	50 00
January 24, By paid J. Knox, salary.....	48 00
January 24, By paid F. Barnett, salary.....	80 00
January 24, By paid R. J. Gordon, salary.....	24 00
January 24, By paid Wm. Knowles, janitor.....	50 00
January 24, By paid Brainerd & Wells, hardware.....	18 26
January 24, By paid Braman & Spring, stationery	87 25
January 24, By paid D. Holmes, postage.....	5 00
January 24, By paid A. K. Franklin, trucking.....	4 50
January 30, By paid Gas Company, gas	84 15
Feb. 21, By paid C. D. McLean, salary	250 00
Feb. 21, By paid F. B. Palmer, salary	180 00
Feb. 21, By paid H. G. Burlingame, salary ..	140 00
Feb. 21, By paid W. H. Lennon, salary.....	140 00
Feb. 21, By paid Mrs. W. C. Sylla, salary.....	120 00
Feb. 21, By paid Miss N. L. Jones, salary.....	90 00
Feb. 21, By paid Miss K. S. Brennan, salary.....	50 00
Feb. 21, By paid Miss M. J. Thompson, salary.....	70 00
Feb. 21, By paid Miss C. M. Chriswell, salary	70 00
Feb. 21, By paid Miss C. Roby, salary.....	70 00
Feb. 21, By paid Mrs. M. A. Cady, salary.....	60 00
Feb. 21, By paid Miss J. E. Lowery, salary.....	60 00
Feb. 21, By paid Miss E. Richmond, salary	60 00
Feb. 21, By paid Miss S. M. Efner, salary.....	60 00
Feb. 21, By paid Mr. J. Knox, salary.....	48 00
Carried forward.....	<u>\$12,623 78</u>

Brought forward.....		\$12,622 73
Feb.	21, By paid Miss F. C. Barnett, salary.....	30 00
Feb.	21, By paid R. J. Gordon, salary.....	24 00
Feb.	21, By paid Wm. Knowles, janitor.....	50 00
March	28, By paid C. D. McLean, salary.....	250 00
March	28, By paid F. B. Palmer, salary.....	180 00
March	28, By paid H. G. Burlingame, salary.....	140 00
March	23, By paid W. H. Lennon, salary.....	140 00
March	23, By paid Mrs. W. C. Sylla, salary.....	120 00
March	23, By paid Miss C. M. Chriswell, salary.....	70 00
March	23, By paid Miss N. L. Jones, salary.....	90 00
March	23, By paid Miss C. Roby, salary.....	70 00
March	28, By paid M. J. Thompson, salary.....	70 00
March	23, By paid Mrs. M. A. Cady, salary.....	60 00
March	23, By paid Miss S. M. Efner, salary.....	60 00
March	23, By paid Miss E. Richmond, salary.....	60 00
March	23, By paid Miss J. E. Lowery, salary.....	60 00
March	23, By paid Miss K. S. Brennan, salary.....	50 00
March	23, By paid Mr. J. Knox, salary.....	48 00
March	23, By paid Miss F. C. Barnett, salary.....	30 00
March	23, By paid R. J. Gordon, salary.....	24 00
March	23, By paid Wm. Knowles, janitor.....	50 00
April	20, By paid C. D. McLean, salary.....	250 00
April	20, By paid F. B. Palmer, salary.....	180 00
April	20, By paid H. G. Burlingame, salary.....	140 00
April	20, By paid W. H. Lennon, salary.....	140 00
April	20, By paid Mrs. W. C. Sylla, salary.....	120 00
April	20, By paid Miss N. L. Jones, salary.....	90 00
April	20, By paid Miss C. M. Chriswell, salary.....	70 00
April	20, By paid Miss C. Roby, salary.....	70 00
April	20, By paid Miss M. J. Thompson, salary.....	70 00
April	20, By paid Mrs. M. A. Cady, salary.....	60 00
April	20, By paid Miss E. Richmond, salary.....	60 00
April	20, By paid Miss S. M. Efner, salary.....	60 00
April	20, By paid Miss J. E. Lowery, salary.....	60 00
April	20, By paid Miss K. S. Brennan, salary.....	50 00
April	20, By paid J. Knox, salary.....	48 00
April	20, By paid Miss F. C. Barnett, salary.....	30 00
April	20, By paid R. J. Gordon, salary.....	24 00
April	20, By paid Wm. Knowles, janitor.....	50 00
May	21, By paid C. D. McLean, salary.....	250 00
May	21, By paid F. B. Palmer, salary.....	180 00
May	21, By paid H. G. Burlingame, salary.....	140 00
May	21, By paid W. H. Lennon, salary.....	140 00
Carried forward.....		\$16,590 73

Brought forward.....		\$16,580 73
May	21, By paid Mrs. W. C. Sylla, salary.....	120 00
May	21, By paid Miss C. M. Chriswell, salary.....	70 00
May	21, By paid Miss N. L. Jones, salary.....	90 00
May	21, By paid Miss M. J. Thompson, salary.....	70 00
May	21, By paid Miss C. Roby, salary.....	70 00
May	21, By paid Mrs. M. A. Cady, salary.....	60 00
May	21, By paid Miss E. Richmond, salary.....	60 00
May	21, By paid Miss J. E. Lowery, salary.....	60 00
May	21, By paid Miss S. M. Efner, salary.....	60 00
May	21, By paid Miss K. S. Brennan, salary.....	50 00
May	21, By paid J. Knox, salary.....	48 00
May	21, By paid Miss F. C. Barnett, salary.....	30 00
May	21, By paid R. J. Gordon, salary.....	24 00
May	21, By paid Wm. Knowles, janitor.....	50 00
June	11, By paid A. S. Hamilton & Co., keys.....	3 30
June	15, By paid C. D. McLean, salary.....	250 00
June	15, By paid F. B. Palmer, salary.....	180 00
June	15, By paid W. H. Lennon, salary.....	140 00
June	15, By paid H. G. Burlingame, salary.....	140 00
June	15, By paid Mrs. W. C. Sylla, salary.....	120 00
June	15, By paid Miss C. M. Chriswell, salary.....	70 00
June	15, By paid Miss N. L. Jones, salary.....	90 00
June	15, By paid Miss J. E. Lowery, salary.....	60 00
June	15, By paid Miss S. M. Efner, salary.....	60 00
June	15, By paid Miss E. Richmond, salary.....	60 00
June	15, By paid Miss C. Roby, salary.....	70 00
June	15, By paid Mrs. M. A. Cady, salary.....	60 00
June	15, By paid Miss M. J. Thompson, salary.....	70 00
June	15, By paid J. Knox, salary.....	48 00
June	15, By paid Miss K. S. Brennan, salary.....	50 00
June	15, By paid Miss F. C. Barnett, salary.....	30 00
June	15, By paid R. J. Gordon, salary.....	24 00
June	15, By paid Wm. Knowles, janitor.....	50 00
July	2, By paid C. D. McLean, salary.....	250 00
July	2, By paid C. D. McLean, mileage.....	194 22
July	2, By paid F. B. Palmer, salary.....	180 00
July	2, By paid H. G. Burlingame, salary.....	140 00
July	2, By paid W. H. Lennon, salary.....	140 00
July	2, By paid Mrs. W. C. Sylla, salary.....	120 00
July	2, By paid Miss N. L. Jones, salary.....	90 00
July	2, By paid Miss C. M. Chriswell, salary.....	70 00
July	2, By paid Miss C. Roby, salary.....	70 00
July	2, By paid Miss M. J. Thompson, salary.....	70 00
Carried forward.....		\$20,842 25

Brought forward.....		\$20,842 25
July 2, By paid Mrs. M. A. Cady, salary.....		60 00
July 2, By paid Miss S. M. Efner, salary.....		60 00
July 2, By paid Miss E. Richmond, salary		60 00
July 2, By paid Miss J. E. Lowery, salary		60 00
July 2, By paid Miss K. S. Brennan, salary		50 00
July 2, By paid J. Knox, salary.....		48 00
July 2, By paid Wm. Knowles, janitor		50 00
July 2, By paid R. J. Gordon, salary		24 00
July 2, By paid Miss F. C. Barnett, salary		30 00
August 15, By paid M. Hayken, painting.....		372 50
August 15, By paid S. F. Parker, Hayken's order		20 00
August 15, By paid J. I. Learnard, painting		106 88
August 15, By paid J. F. Peterson, painting.....		5 00
August 15, By paid W. H. Benedict, Peterson's order		10 00
August 15, By paid J. B. Vanderhoof, labor		8 50
August 15, By paid Patrick Koen, labor		7 00
August 15, By paid Henry Bolt, labor		18 50
August 15, By paid A. B. Losee, labor		26 18
August 15, By paid Underhill, Braman & Co., lumber.....		117 48
August 15, By paid D. Holmes, Van Slyke's order.....		6 00
August 15, By paid Brainerd & Wells, hardware.....		811 87
August 15, By paid L. J. Pease, Van Slyke's order.....		25 00
August 15, By paid Patrick Collins, labor		4 00
August 15, By paid Michael King, labor.....		14 88
August 16, By paid Wm. Welch, lime.....		12 00
August 17, By paid C. S. Wright, labor		28 75
August 19, By paid Patrick Mehan, labor		2 00
August 20, By paid J. C. Van Slyke, labor.....		2 63
August 21, By paid Patrick Koen, labor.....		1 50
August 22, By paid E. Whitney, Van Slyke's order.....		9 00
Sept. 4, By paid N. B. Sizer, labor.....		2 50
Sept. 23, By paid J. I. Learnard, painting		230 12
Sept. 25, By paid William Welch, sand and lime.....		68 05
Sept. 25, By paid William Welch, Bradt's order.....		5 50
Sept. 25, By paid L. J. Pease, Van Slyke's order.....		15 00
Sept. 25, By paid Thomas Spellman, Van Slyke's order....		7 75
Sept. 25, By paid Henry Bolt, labor.....		58 50
Sept. 25, By paid K. W. Bradt, labor		6 87
Sept. 25, By paid J. A. Latta, Van Slyke's order.....		5 50
Sept. 25, By paid J. A. Latta, Bradt's order'.....		4 00
Sept. 25, By paid Brainerd & Wells, hardware.....		273 02
Sept. 25, By paid Underhill & Co., lumber.....		107 48
Sept. 25, By paid A. B. Losee, labor.....		71 50

Carried forward... .. \$22,784 16

Brought forward.....		\$22,734 16
Sept. 25,	By paid E. Johnston, labor.....	2 50
Sept. 25,	By paid Patrick Koen, labor.....	23 15
Sept. 25,	By paid F. Williams, labor.....	15 75
Sept. 25,	By paid Patrick Collins, labor.....	15 00
Sept. 25,	By paid J. B. Vanderhoof, labor.....	23 72
Sept. 25,	By paid W. Vanderhoof, labor.....	12 50
Sept. 25,	By paid S. W. Allen, labor.....	8 00
Sept. 25,	By paid J. T. Peterson, labor.....	21 33
Sept. 25,	By paid Michael King, labor.....	35 00
Sept. 25,	By paid A. K. Franklin, Van Slyke's order.....	2 63
Sept. 26,	By paid L. Cooley & Co., brackets.....	34 93
Sept. 26,	By paid A. Coats, labor.....	3 50
Sept. 26,	By paid E. Whitney, Van Slyke's order.....	23 77
Sept. 26,	By paid E. C. Cook, labor.....	16 87
Sept. 26,	By paid M. B. Brunson, labor.....	7 00
Sept. 26,	By paid C. S. Wright, labor.....	57 50
Sept. 27,	By paid L. B. Courtney, labor.....	1 13
Sept. 27,	By paid L. B. Courtney, labor.....	15 75
Sept. 27,	By paid J. Raleighs, Van Slyke's order.....	11 50
Sept. 27,	By paid W. E. Johnston, Bradt's order.....	3 00
Sept. 27,	By paid J. Doyle, labor.....	2 00
Sept. 27,	By paid Henry Rice, Van Slyke's order.....	8 85
Sept. 27,	By paid T. Henion, labor.....	41 25
Sept. 27,	Cash on hand.....	232 74
		<u>\$23,848 58</u>

No. 2.—ACADEMIC DEPARTMENT.

1871.		<i>Receipts.</i>	<i>Dr.</i>
October 1,	To cash on hand.....		\$1,233 03
October 4,	To cash of tuition.....		198 40
October 7,	To cash of tuition.....		203 19
October 13,	To cash of tuition.....		106 40
Nov. 4,	To cash of tuition.....		56 90
Nov. 25,	To cash of tuition.....		140 00
Nov. 27,	To cash of tuition.....		250 40
Dec. 4,	To cash of tuition.....		319 00
Dec. 8,	To cash of tuition.....		168 00
Dec. 16,	To cash of tuition.....		142 40
Dec. 23,	To cash of tuition.....		81 20
1872.			
January 6,	To cash of tuition.....		43 80
January 20,	To cash of tuition.....		26 10
Carried forward.....			<u>\$2,973 87</u>

Brought forward.....		\$2,978 87
Feb. 5, To cash of tuition		22 80
Feb. 28, To cash of tuition		275 00
March 20, To cash of tuition		40 00
March 9, To cash of tuition		118 10
March 15, To cash of tuition		86 00
March 30, To cash of tuition		80 00
April 22, To cash of tuition		64 70
May 6, To cash of tuition		47 60
May 22, To cash of tuition		95 40
June 3, To cash of tuition		48 00
June 14, To cash of tuition		31 00
July 5, To cash of tuition		56 10
Sept. 12, To cash of tuition		156 00
Sept. 18, To cash of tuition		90 00
Sept. 17, To cash of tuition		105 00
Sept. 18, To cash of tuition		95 60
Sept. 21, To cash of tuition		78 00
Sept. 24, To cash of tuition		78 00
		<hr/>
		\$4,475 67

1871.

*Disbursements.**Or.*

October 10, By paid James W. Queen & Co., apparatus	\$452 75
October 14, By paid Brainerd & Wells, hardware.....	42 86
October 18, By paid Wm. Welch, plaster.....	54 97
October 21, By paid L. Cooley & Co., mouldings.....	50 89
October 25, By paid J. Knox, salary.....	52 00
October 25, By paid Wm. Knowles, janitor.....	25 00
Nov. 7, By paid James W. Queen & Co., apparatus.....	118 82
Dec. 4, By paid J. Pendergast, labor	15 26
Dec. 6, By paid J. Knox, salary.....	52 00
Dec. 6, By paid Wm. Knowles, janitor.....	25 00
Dec. 6, By paid Wm. Welch, tile	8 93
Dec. 6, By paid J. H. and E. Bennett, labor.....	22 00
Dec. 8, By paid Tunis Henion, labor.....	5 00
Dec. 9, By paid A. B. Losee, labor.....	59 50
Dec. 15, By paid Tozier & Haight, stationery.....	38 03
Dec. 15, By paid J. Knox, salary.....	52 00
Dec. 15, By paid Miss E. M. Johnston, salary.....	35 00
Dec. 15, By paid Wm. Knowles, janitor.....	25 00
Dec. 15, By paid James Harper, labor.....	2 50
Dec. 15, By paid W. H. Fuller, painting.....	88 22
Dec. 15, By paid Brainerd & Wells, hardware.....	117 85
Carried forward.....	<hr/> \$1,288 63

Brought forward.....	\$1,268 68
Dec. 15, By paid Underhill, Braman & Co., lumber.....	40 85
Dec. 23, By paid L. Cooley & Co., inside blinds.....	152 00
1872.	
January 6, By paid J. H. Atkins, sand	10 50
January 12, By paid J. W. Queen & Co., apparatus.....	26 00
January 18, By paid W. H. Fuller, painting	17 88
January 18, By paid W. H. Fuller, painting	17 64
January 24, By paid H. McElwin, slating black boards.....	135 50
January 24, By paid Miss E. M. Johnson.....	70 00
January 24, By paid J. Knox, salary.....	52 00
January 24, By paid Wm. Knowles, janitor....	25 00
January 24, By paid A. S. Hamilton & Co., hinges.....	4 68
January 24, By paid Brainerd & Wells, glass.....	27 55
January 24, By paid H. Casey, carting.....	8 00
January 25, By paid J. Pendergast, labor	4 50
Feb. 2, By paid A. B. Losee, labor	19 00
Feb. 3, By paid Chas. Schick, labor	17 00
Feb. 3, By paid J. W. Queen & Co., apparatus	108 00
Feb. 15, By paid C. G. Brewster, apparatus	18 00
Feb. 21, By paid Miss E. M. Johnson, salary	70 00
Feb. 21, By paid J. Knox, salary.....	52 00
Feb. 21, By paid Wm. Knowles, janitor.....	25 00
Feb. 21, By paid E. Whitney, carpeting.....	25 25
Feb. 21, By paid D. Paine, repairs.....	51 13
Feb. 21, By paid Tozier & Haight, stationery	16 59
Feb. 21, By paid Gas Company, gas	89 25
Feb. 21, By paid Chas. Schick, labor	27 00
Feb. 21, By paid A. B. Losee, labor	27 00
Feb. 21, By paid J. Smith, lumber.....	19 51
Feb. 21, By paid O. B. Avery, express	4 75
Feb. 21, By paid Brainerd & Wells, hardware.....	72 84
Feb. 21, By paid Underhill, Braman & Co., lumber	20 68
Feb. 21, By paid Wm. H. Fuller, oiling blinds, etc.....	65 37
Feb. 21, By paid C. D. McLean, mileage	268 28
March 23, By paid Miss E. M. Johnson, salary	70 00
March 23, By paid J. Knox, salary	52 00
March 23, By paid Wm. Knowles, janitor	25 00
April 4, By paid Brainerd & Wells, glass	25 40
April 4, By paid A. K. Franklin, trucking.....	18 25
April 5, By paid C. H. Jenner, repairs.....	35 64
April 6, By paid O. B. Avery, express..	5 90
April 20, By paid Miss E. M. Johnson, salary.....	70 00
Carried forward.....	\$8,178 12

Brought forward.....	\$3,178 12
April 20, By paid J. Knox, salary.....	52 00
April 20, By paid Wm. Knowles, janitor	25 00
April 20, By paid L. T. Beach, printing.....	26 00
April 20, By paid Gas Company, gas	98 98
April 20, By paid O. B. Avery, express.....	4 80
April 20, By paid Mahon & Brigham, printing	38 35
May 6, By paid A. B. Losee, labor	5 00
May 21, By paid Miss E. M. Johnson, salary	70 00
May 21, By paid J. Knox, salary.....	52 00
May 21, By paid Wm. Knowles, janitor	25 00
May 21, By paid L. Cooley, Jr., drawing specifications....	20 00
June 15, By paid Miss E. M. Johnson, salary	70 00
June 15, By paid J. Knox, salary.....	52 00
June 15, By paid Wm. Knowles, janitor	25 00
July 2, By paid Miss E. M. Johnson, salary	70 00
July 2, By paid J. Knox, salary.....	52 00
July 2, By paid Wm. Knowles, janitor	25 00
Sept. 30, By cash on hand.....	596 47
	<hr/> <hr/>
	\$4,475 67

SUMMARY OF FINANCIAL REPORT.

Receipts.

Amount in hands of local board, October 1, 1871 (normal)	\$0 99
Amount in hands of local board, October 1, 1871 (academic) ..	1,288 08
Amount received from State for year ending Sept. 30, 1872...	28,347 59
Amount received from tuition, academic department.....	8,287 59
	<hr/> <hr/>
	\$27,824 25

Disbursements.

Amount paid for instruction, normal department.....	\$15,157 50
Amount paid for instruction, academic department	1,045 00
Amount paid for library, text-books and apparatus.....	882 48
Amount paid for repairs and improvements.....	6,715 57
Amount paid for incidental expenses.....	3,194 49
Amount in hands of local board, October 1, 1872 (academic department).....	596 47
Amount in hands of local board, October 1, 1872 (normal department).....	282 74
	<hr/> <hr/>
	\$27,824 25

V. FACULTY.

There were no changes in the faculty during the past year.

VI. LOCAL BOARD.

By a clause of the general appropriation bill for the year 1872 (chap. 541, Laws of 1872), the number of the local board was increased to eleven, and Aaron N. Braman and Elijah C. Chriswell were added to the former number.

The following are the names and residences of the board as at present organized :

Jerome Fuller, President, Brockport.

Daniel Holmes, Secretary, Brockport.

J. Durward Decker, Treasurer, Clarkson.

Eliphalet Whitney, President, *pro tem.*, Brockport.

Joseph A. Tozier, Secretary, *pro tem.*, Brockport.

M. B. Anderson, Rochester.

Henry W. Seymour, Brockport.

Augustus F. Brainerd, Brockport.

John A. Latta, Brockport.

Elijah C. Chriswell, Clarkson.

Aaron N. Braman, Brockport.

VII. DEPARTMENTS.

The school consists of a normal and a training school.

The normal school is organized and conducted with the view to give pupils a thorough knowledge of the subjects they will be required to teach in the public schools of our State, to instruct them in the philosophy of education, and to furnish them with a knowledge of the best methods of instruction in the different subjects taught, and skill in the use of them. These ends are sought by requiring daily recitations on thoroughly prepared lessons throughout the entire course of study; by daily dictation, class discussion and recitation on methods and the philosophy of education during most of the course; and the daily use of the methods taught in the actual instruction and management of classes in the training school during the greater part of the course.

It is the object of the training school to furnish normal pupils with the opportunity of teaching under competent critics, in all the branches required to be taught in our public

schools. It consists of a primary, an intermediate and an academic department, which represent all the various grades of instruction required in district, union and high schools.

The academic department has held a high position from the first, in point of numbers and in the character of its students. Aside from its value as a constituent part of the training school, it has a direct value in its relation to the normal school, in many respects which ought not to be overlooked. It is not only self-supporting, but beyond this it is an important source of revenue, as the financial report will show. It fits pupils for the normal school, better than they are likely to be fitted without such a place of preparation. It sends out yearly a large number who attend school with no direct purpose of becoming teachers, but who, for various reasons, teach a term or more, and who teach better for even the slightest acquaintance they obtain, through their connection with this school, with improved methods of instruction. This class of teachers must continue to be large for many years to come, as it has been in years past. The academic department, if it does not do all our schools require, does something for this large class of teachers that would not be done without it, and that without public expense. This department supplies a real want in the community where the school is located; and, in so doing, an act of justice is performed to those who have furnished the building and grounds to the State; and also the sympathies and interest of the surrounding community, without which no institution can do its best work, are enlisted in behalf of its good management and prosperity. It instructs yearly many who enter upon business, who continue in study through the higher college course, or who enter professional life, and who go out prepared to give more intelligent and hearty aid to the cause of education, whatever may be their calling, for the links of association that have bound them to the normal school.

While the number and character of those yearly graduating from this school are a token of direct good to the many schools around, which wait for such aid, your board feel

impressed with the fact that the list of graduates is a very inadequate measure of the actual value of the school to the cause of education. The list of undergraduates who have gone out to teach, and who do not feel that they can come back to complete their course, is far greater. Since the establishment of the school, not less than six or seven hundred of these have actually entered upon the work of teaching. In order that this class of teachers may be the better prepared for their work, methods of instruction and practice in the training school are distributed over the greater part of each of the longer courses. But there is another element of value for the cause of education, besides that which is measured by the number of terms which normal pupils give to the actual work of teaching. It is the intelligent interest that all those who come in contact with these schools, who draw something of their spirit and views from them, will take in the cause of popular education in the several localities where they may be settled. Put a man of intelligence, and one who appreciates the wants of our schools, in each school district in the State, and it would accomplish almost as much as the same number of teachers could do without their support. Intelligent communities will bring good teachers, quicker than teachers of the highest grade can train communities to support good schools. In short, the value of normal schools is not to be estimated by number at all, but by quality. The question of their support should not depend, in any degree, upon their availability immediately to supply all the schools of the State. They extend their influence in many ways, and reach a number of schools many times as great as those actually taught by their pupils. The question should be, "Is the work they do good work?" If it is, the laws of nature will see to it that it is both duly intensive and extensive in its results. An evidence, bearing on the one question to be asked, is the almost universal call for teachers from our normal schools in all parts of our State where they have been tried. The higher wages paid to them, and the rapidly increasing earnestness with which these calls are made, are points of important interest. The number seeking to

avail themselves of the advantages of this school is as great as can be well provided for with the means at the disposal of your board, and, perhaps, as large as can be profitably placed together in our school.

The normal courses of instruction and other important information will be found in the Appendix (Document Q).

VIII. ATTENDANCE.

From September 30, 1871, to September 30, 1872:

Normal department	329
Academic department	289
Intermediate department	188
Primary department	210
Total.....	<u>1,016</u>

IX. ALUMNI.

Graduated during the past year:

Male	7
Female	11
Total.....	<u>18</u>

Whole number graduated since school was established:

Male	22
Female	43
Total.....	<u>65</u>

STATE OF NEW YORK, }
Monroe County, } ss.:

Eliphalet Whitney, president *pro tem.*, and Daniel Holmes, secretary of the local board of the Brockport Normal School, being duly sworn, say, and each for himself severally says, that he has read the foregoing report, and knows the contents

thereof, and that the same is true according to his best judgment and belief.

ELIPHALET WHITNEY, *Pres't pro tem.*

DANIEL HOLMES, *Secretary.*

Sworn to and subscribed before me }
this 6th day of February, 1873. }

R. CHICKERING, *Notary Public.*

List of graduates of Brookport State Normal and Training School, from the beginning of the school to September, 1872, with date of graduation:

GRADUATED JUNE 23, 1868.

Sophia A. Graves.

Susan Fisk.

Harriet E. Davis.

C. Louise Fisk.

GRADUATED JULY 13, 1869.

Coralin Bennett.

Jennie V. Miller.

C. Herbert Silliman.

Harriet L. Gillett.

Henrietta M. Allen.

George D. Olds.

GRADUATED JULY 1, 1870.

Ruth E. Newcomb.

William H. Sybrandt.

Charles B. Fairchild.

James W. White.

Emma J. Smith.

Mina L. Shear.

Francelia P. Wood.

Emma L. Warren.

Maria L. Allen.

Mina A. Frye.

Louise M. Winslow.

Martin L. Deyo.

Frances A. Richmond.

Jane E. Lowery.

Esther L. Spink.

Imogene P. Ferguson.

Stephen D. Wilbur.

GRADUATED JUNE 30, 1871.

Harriet Harmon.

Ella D. Barrier.

James Knox.

Frank M. Goff.

Emma J. Chriswell.

Cora A. Smith.

Catharine M. Castle.

Charles Cunningham.

Delia A. Fuller.
Lizzie A. Sylvester.
John D. Burns.
Harriet A. Kerby.
A. Judson Osborne.
Frances A. Hicks.

Kittie Taylor.
George F. Yeomans.
John M. Milne.
Mary F. Prudden.
Ida L. Goodrich.
George T. Quimby.

GRADUATED JULY 2, 1872.

Delbert A. Adams.
Flora M. Bassett.
Julia Byrns.
Jennie S. Fuller.
William Goodell.
Amelia E. Hayes.
Charles F. Hamlin.
Fitz James Hill.
Jonas Minot, Jr.

Candace H. Norton.
Ettie Clark Reynolds.
Charles G. Smith.
Edwin L. Warren.
Delia A. Chappell.
Ida V. Miner.
Delcluth Pierce.
Franc T. Quimby.
Sophia Bolard.

SPECIAL ANNOUNCEMENT IN CIRCULAR.

Location.

The village of Brockport is situated seventeen miles west of Rochester, on the line of the Rochester and Niagara Falls railroad. The buildings command a fine view of the village and the surrounding country. The grounds are extensive, embracing an area of more than six acres, handsomely graded and adorned with gravel walks, a circular drive and full grown shade trees.

Expenses.

Board, including furnished room, fuel and light, can be obtained in the village, in private families, at from \$4 to \$4.50 per week.

In the normal school building, board, including furnished room, fuel, light and washing, is provided for young ladies at \$3 per week. The accommodations furnished, and the general plan of conducting the boarding hall, can be learned from the following statements:

1. The building is large and commodious, affording the best accommodations for boarding one hundred and twenty students. All the rooms are large, high and well ventilated, with a closet attached to each.

2. Each room is carpeted, and neatly furnished with everything necessary for the comfort of the student, and is occupied by only two ladies. The rooms are heated by good coal stoves. The coal is delivered in each room.

3. A servant, who does all the heavy work pertaining to the dining-room, kitchen and study-rooms, is provided for every thirty boarders. Each young lady is expected to work one hour per day. The work done by the boarders and servants is under the immediate supervision of a matron, who has the general oversight of the whole boarding-house.

4. The quality of the board is fixed by the boarders, subject to the approval of the matron.

5. Each boarder is charged one dollar per week to defray the expense of furnishing study-room, dining-room and kitchen, and to pay the wages of matron and servants. All other expenses, including board, fuel, light, and washing, will not exceed two dollars per week, as shown by the statement of the secretary of the boarding-hall. Thus, *the entire expense is brought within three dollars per week.*

6. Those who prefer not to participate in the risk will be received into the boarding-hall by paying three dollars per week, and performing the required work.

7. The room rent is payable quarterly in advance. Eight dollars is payable each month, in advance, for board. Should the entire expense be less than three dollars per week, the surplus which has been paid in advance will be refunded at the end of the term.

8. All who board in the boarding-hall are expected to furnish their own towels, napkins, sheets, pillow-cases and one comforter, each of which, as well as every article of clothing, should be distinctly marked with the owner's full name.

9. No deduction will be made for absence during the first two weeks of the term, nor for absence from any cause, after the time of entering, for a period of less than five weeks.

STATE NORMAL SCHOOL, BROCKPORT, N. Y., July 1, 1871.

To the Local Board of the State Normal School:

GENTLEMEN.—The books of the boarding-hall show that the average expense per week for board, room rent, fuel, light and washing, for the year, has been less than three dollars. I would further state that the general plan and management of the boarding-hall, and the character of the board, have given universal satisfaction.

Yours very respectfully,

DELIA A. FULLER,
Secretary.

It will be seen from the above statements, that the whole expense *per annum*, to young ladies attending the normal school, will not exceed \$120.

On arriving at Brockport, baggage may be left at the depot until boarding places are selected, when it will be delivered free of charge. Students, arriving on Tuesday or Wednesday of the week in which the term opens, should proceed immediately to the normal school building, where they will meet some member of the faculty, who will render them all necessary assistance.

(K.)

ANNUAL REPORT OF THE LOCAL BOARD OF
THE STATE NORMAL AND TRAINING SCHOOL
AT BUFFALO.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The local board of the State Normal and Training School at Buffalo, in answer to the requirements of the law, submits its second annual report as follows :

The local board and its officers remain as at the last report, viz. :

Hon. N. K. Hall, Buffalo, Chairman.

Wm. H. Greene, Buffalo, Secretary.

Joseph Warren, Buffalo, Treasurer.

Thomas F. Rochester, Buffalo.

Francis H. Root, Buffalo.

Henry Lapp, Clarence.

Allen Potter, East Hamburg.

Grover Cleveland, Buffalo.

Albert H. Tracey, Buffalo.

The executive committee of the board is composed of the first five gentlemen named above.

FACULTY OF THE SCHOOL.

Two changes have taken place in the faculty during the year, occasioned by the resignation of Miss Sarah Bostwick in July, and of Miss Laura G. Lovell in November. The place of the former was filled by the appointment of Miss Mary Wright, and that of the latter by the appointment of Miss Ellen Wiltse for the time being. The names, departments of instruction, and salaries, are as follows :

Names.	Departments.	Salaries.
H. B. Buckham, A. M., Principal,	Philosophy and Didactics.....	\$2,500
Wm. B. Wright, A. M.....	Ancient and Modern Languages..	1,800
Calvin Patterson	Pure and Applied Mathematics..	1,800
David S. Kellicott, M. S.....	Physical Science.....	1,500
George Hadley, A. M.....	Chemistry and Geology.....	1,000
Mark M. Maycock.....	Drawing and Penmanship.....	600
Charles W. Sykes	Vocal Music.....	500
Mary Wright	Elementary Methods and Critic..	1,000
Mary J. Hannon	Elocution and Rhetoric..	1,000
Susan Hoxie.....	General Assistant.....	750
Ellen Wiltse.	General Assistant, <i>pro tempore</i> ...	900

The teachers in the school of practice are paid by the city, except that Miss Flora E. Crandall is paid a hundred and fifty dollars for services outside of her regular duties as teacher of the grades under her care. Each of these teachers is critic teacher in her own room. Their names are as follows, the salary of each, except Miss Crandall, being \$650:

Flora E. Crandall, first and second grades.

Ada M. Kenyon, third and fourth grades.

Isabella Gibson, fifth and sixth grades.

Kate Field, seventh and eighth grades.

Mary M. Williams, ninth and tenth grades.

NUMBER IN ATTENDANCE.

The number of students reported last year, as in attendance at the opening of the school, namely, fifty-six, has increased to one hundred and eighty-five. The average attendance during the first year was seventy, the number registered being ninety-four. The average attendance during the first term of the second year, to the Christmas recess, was one hundred and forty-nine, the number registered being one hundred and sixty-seven. The average attendance would be, in both cases, nearer to the number registered, if it were not necessary to include in the count those who joined the school without due consideration, and who, finding that its character and the work to be done in it were misapprehended, withdrew after a few days of unsatisfactory trial. During the first year eight or ten such were registered, as a few have also been during

the present term. The board proposes to recognize in the catalogue only those who have been members of the school for at least one full quarter, or ten weeks.

Of these students one hundred and forty-six are residents of Buffalo, twenty-two are residents of Erie county outside of Buffalo, sixteen are from other counties of this State, and one from another state.

COURSES OF STUDY.

The course of study most appropriate for the student-teacher is not easily decided upon. The law, indeed, fixes a standard of attainments for certificates of different grades, and trustees of schools are, so far, restricted in the employment of teachers. But this standard is, in the main, an intellectual one; the application of it is in the hands of a large number of persons, and, therefore, liable to great want of uniformity; and the differing circumstances and demands of different districts impose on those who grant licenses the necessity of making certificates of similar tenor stand for qualifications of very dissimilar grade. It is thus, in effect, left to the individual student to determine, outside of this law, what kind and what extent of preparation for teaching he will make. As a rule, he can or will remain in the normal school but a short time; in many cases there is want of a fixed purpose to teach long enough to make thorough preparation good economy, and too often a choice of teaching, as even a temporary work, from no discovered fitness or liking for it. Among the students there is a too prevalent want of recognition of the importance of little things, such as spelling, penmanship, ability to write a page of English without blunders, and an equally prevalent ambition to enter at once on studies thought to be more advanced. Those who are to teach in mixed schools will need to know a little of almost everything, and those who are to teach in graded schools will need to know, as they think, only smaller and well-defined parts of a few subjects.

In connection with this is another serious question. Shall the study of methods be, in the main, joined with the study of

subjects, or shall subjects be studied first and almost exclusively with reference to a thorough knowledge of their contents, and then the general principles of teaching be learned and applied to this knowledge in a distinct course of lessons? If the former; is not the student in danger of losing both, from the obvious impossibility of joining the two in the instruction of any ordinary class, except as the manner of the teacher and an occasional and hurried excursion into the region of methods may furnish a model for the student to imitate in his teaching of others? Would he not, by this education, become a mere dabbler in methods, without the substance of knowledge on which to exercise them? If the latter; will not the great majority of students, as in fact they do, attend only the classes studying subjects, and so practically make a knowledge of sciences with a good model before them while they are learning their only preparation for teaching? And, considering the large number in attendance and the small number of graduates, will not this tend to make our normal schools large academies and small professional schools?

Two points are held to be clearly established: That pupils do not come to the normal school with sufficient knowledge of subjects to justify us in graduating them as teachers; and that philosophies and methods, considered to be essential to the complete outfit of the teacher, are most successfully communicated where the substance of education is gained. The acquisition of knowledge, the study of methods, and the beginning of practice, can all be carried on, with best results for all parties concerned, in one and the same school and under a uniform discipline, all whose efforts are directed to one result.

These considerations seem to furnish to the board the only ground on which they can proceed in arranging their course of study. Certainly, thorough education of the scholar ought in all cases to be the basis of professional training; and with equal confidence it is asserted that, in all cases, professional training should supplement education as a scholar. Our normal schools must furnish the opportunity of this education that they may properly complete their work; the student must

acquire this, that he may, and before he can, answer the question whether he can make of himself a teacher of others. And this education, acquired with direct reference to the use to be made of it in the professional work to follow, will be the best substitute for that work, if it should, unfortunately, be omitted, and will best prepare the teacher to acquire all his skill by the daily experience of the school-room, and at least cost or risk to the pupil. The academic function of the course of study must be based on this principle; to select subjects of study, and to use methods of presenting them, with reference to their being elements in the professional work to which they all tend, more than with reference to their being elements in a general education equally applicable to all sorts of pursuits. In this way a good education brings a most important, indeed an indispensable contribution, to the study of philosophies and methods. So valuable is this tribute, that the ordinary graduate is worth double what he would be without it by the study of methods alone, and the cost of bringing so many to the point of entering the professional course, that a comparatively small number may complete it, is more than repaid, inasmuch as this education is at once the best introduction to studies strictly professional, and the best preparation for teaching, possible without them.

The courses of study, tested by our experience so far, and very carefully reviewed and modified by the faculty for presentation in this report, are these:

COURSES OF STUDY.

(A.) NORMAL COURSES.					(C.) SCIENTIFIC COURSE.				
ELEMENTARY ENGLISH COURSE.					PREPARATORY SUBJECTS.				
YEAR I.					YEAR I.				
1	2	3	4		1	2	3	4	
Arithmetic.....	+	+	+		Arithmetic.....	+	+	+	+
Grammar and Analysis.....	+	+	+		Geography.....	+	+	+	+
Geography.....	+	+	+		History of the United States.....	+	+	+	+
History of United States.....	+	+	+		English Grammar or German.....	+	+	+	+
Reading.....	+	+	+		Reading.....	+	+	+	+
Spelling and Composition.....	+	+	+		Spelling and Composition.....	+	+	+	+
Linear Drawing.....	+	+	+		Linear Drawing.....	+	+	+	+
Botany.....	+	+	+		Pennmanship.....	+	+	+	+
Physiology and Zoology.....	+	+	+						
Vocal Music.....	+	+	+						
YEAR II.					YEAR II.				
Philosophy of Education.....	+	+	+		Algebra.....	+	+	+	+
School Economy.....	+	+	+		Geometry.....	+	+	+	+
School Law.....	+	+	+		Book-keeping.....	+	+	+	+
School Hygiene.....	+	+	+		Civil Government.....	+	+	+	+
Methods of giving Object Lessons.....	+	+	+		Elementary Natural Philosophy.....	+	+	+	+
Methods of teaching Elementary Subjects.....	+	+	+		Elementary Chemistry.....	+	+	+	+
Teaching in School of Practice.....	+	+	+		German, or General History and Literature.....	+	+	+	+
Model Lessons with Normal Classes, Visiting Schools.....	+	+	+						
CLASSICAL COURSE.					YEAR I.				
YEAR I.					1	2	3	4	
Algebra.....	+	+	+		Algebra.....	+	+	+	+
Geometry and Plane Trigonometry, Harness First Latin Book and Caesar.....	+	+	+		Geometry.....	+	+	+	+
Rhetoric and Composition.....	+	+	+		Rhetoric and Composition.....	+	+	+	+
General History.....	+	+	+		General History.....	+	+	+	+
Civil Government.....	+	+	+		Civil Government.....	+	+	+	+
YEAR II.					YEAR II.				
Natural Philosophy.....	+	+	+		Natural Philosophy.....	+	+	+	+
Chemistry.....	+	+	+		Chemistry.....	+	+	+	+
Astronomy.....	+	+	+		Astronomy.....	+	+	+	+
Latin Grammar and Virgil.....	+	+	+		Latin Grammar and Virgil.....	+	+	+	+
First Greek Book.....	+	+	+		First Greek Book.....	+	+	+	+
Greek Grammar and Xenophon.....	+	+	+		Greek Grammar and Xenophon.....	+	+	+	+
YEAR III.					YEAR III.				
Cicero.....	+	+	+		Cicero.....	+	+	+	+
Xenophon.....	+	+	+		Xenophon.....	+	+	+	+
Philosophy of Education.....	+	+	+		Philosophy of Education.....	+	+	+	+
* Elementary and Higher Methods, * Teaching in School of Practice.....	+	+	+		* Elementary and Higher Methods, * Teaching in School of Practice.....	+	+	+	+
Mineralogy and Geology.....	+	+	+		Mineralogy and Geology.....	+	+	+	+

COURSES OF STUDY—(Continued).

ADVANCED ENGLISH COURSE.		Half terms of ten weeks each.	
YEAR I.		1	2
Algebra	+	+	+
Geometry and Plane Trigonometry	+	+	+
Natural Philosophy	+	+	+
Chemistry	+	+	+
Composition and Rhetoric	+	+	+
General History	+	+	+
Civil Government	+	+	+
Astronomy	+	+	+
Perspective Drawing	+	+	+
Vocal Music	+	+	+

ADVANCED ENGLISH COURSE.		Half terms of ten weeks each.	
YEAR II.		1	2
Philosophy of Education	+	+	+
School Economy	+	+	+
School Law	+	+	+
School Hygiene	+	+	+
Methods of giving Object Lessons	+	+	+
Methods of Teaching Elementary Subjects	+	+	+
Methods of Teaching Advanced Subjects	+	+	+
Teaching in School of Practice	+	+	+
Model Lessons with Normal Classes	+	+	+
Visiting Schools	+	+	+
Mineralogy and Geology	+	+	+
Moral Philosophy	+	+	+
General Literature	+	+	+

(B.) COLLEGIATE COURSE.		Half terms of ten weeks each.	
SUBJECTS OF THE FIRST YEAR.		1	2
Arnold's Prose Composition and Livy	+	+	+
Herodotus	+	+	+
Odyssey	+	+	+
Algebra	+	+	+
Geometry and Trigonometry	+	+	+
Rhetoric and Composition	+	+	+
Roman History	+	+	+
Grecian History	+	+	+
Geometry	+	+	+
Trigonometry	+	+	+
Land Surveying	+	+	+
Mensuration	+	+	+
Mechanics	+	+	+
Perspective Drawing	+	+	+
Drawing from Models	+	+	+
Physiology and Zoology	+	+	+
Botany	+	+	+

NOTES.—The Classical Course is the preparatory course for the Collegiate Department except that, for the subjects marked *, the study of Latin and Greek will be continued through the year, and any needed reviews of the subjects of the elementary course will be made.
German may be substituted for Greek in this course.
Compositions, Declamations and Selected Readings for the Public Rhetorical Exercises will be required from all the Classes in turn.

SPECIAL CLASS.

The board is well aware that these courses of study call for a longer attendance at the school than the circumstances of many teachers, and the demands of many school districts, will either permit or justify. If all teachers in our public schools were required to graduate at our normal schools before they even begin to teach, these courses express our idea of what a professional outfit should be. We know that many who will offer themselves as teachers of schools for the coming summer, and who will be employed as such, would be frightened at the suggestion of spending two years' time in preparation for such schools as they propose to teach—frightened not from teaching without such preparation, but frightened only from undertaking it. Trustees and parents in many districts would share the sentiment that their schools do not really need it; and the sad truth that so many are intending to teach for a term or two only, with no preparation, to be succeeded in their turn by others of like mind, makes the hope of sending a trained teacher into every district of even a single county seem desperate.

To meet this state of things and to carry out so far as possible our desire to influence schools of all sorts, and especially schools near home, the board has authorized, and the newly elected school commissioners of Erie county have cordially approved, the forming of a special class at the opening of the spring term, to continue five or six weeks, and to be composed of those who design to teach in the summer schools. It is hoped that many, who could not attend through a single year even, would join this class, and that many trustees and parents would insist on having a teacher with at least the limited preparation which, in this class, he might obtain. A special course, adapted, as well as the wisdom of the faculty can devise, to the most obvious needs of small country schools, will be arranged. This experiment (for in this light we regard it) has already been tried with encouraging success in other schools, and, if reasonably prosperous with us in the spring, will be repeated in the autumn. We hope that many, who will

join the class for the short time indicated, will return to take a full course of study, and that many schools may be led to see the profit of having teachers who recognize the necessity of being trained for their work, and so, by and by, be led to demand graduates of some normal school.

PREPARATORY CLASS.

By far the larger proportion of our students, as already indicated, are residents of the city of Buffalo. It is not probable that this proportion will continue, but for the present we may reasonably suppose that at least half will be home students. Indeed, the board considers that its duty and interests alike point to the city and county, in which the school is located, as its legitimate field of work. More than three hundred teachers are constantly employed in the city, and four hundred more during the year in the county. Located as our school is, so near to three other normal schools, it would seem that it should find its main work in schools at home.

A practical difficulty has arisen in this connection. Pupils finish the course of study, in the grammar schools of the city, at an average age of a year younger than is required for entering the normal school. If they are obliged to resort to other schools for a time, many will finish their education in those schools, unless it is seen that graduation at the normal school is the direct path to employment. Many pupils, whose plans to teach are as well formed and definite as the plans of persons so young well can be, applied, during the summer, for admission to the normal school when they should leave the grammar schools. They were at first refused; but when it became evident that the coveted opportunity of educating teachers for the city would thus, in many instances, be lost, the Superintendent was requested to indorse recommendations of those who would reach the age of sixteen before the first day of December. This he consented to do; but there were still quite a number who would reach that age at different subsequent dates during the year, and who were very anxious to enter the school at once. Under these circumstances, the board

authorized the forming of a preparatory class which should embrace promising pupils who would be sixteen before the beginning of the next school year, and these students from abroad who have properly indorsed recommendations but might fall somewhat below the required standard at the preliminary examination. This was possible without any additional cost to the State, as a change in the school of practice, in accordance with regulations of the city department of education, released one of the teachers from part of her work for the year. This class has numbered sixteen persons under age, and its privileges have been confined strictly to such residents of Buffalo as were able to pass a fair examination on the same questions as are given to others, and who express their intention to go through one of its courses of study in accordance with the pledge given below. It may be necessary, with the consent of the Superintendent, to continue this class so long as the number of more advanced students does not forbid. The fact that pupils educated to the age of fifteen in the graded schools of the city are, as a rule, more mature in some traits of character and also in intellectual discipline than persons of the same age educated in country schools, should have weight; but the main justification of such a course would be found in the assured opportunity of educating the teachers of the city.

THE SPIRIT OF THE SCHOOL.

It has been the purpose of the board, and the constant endeavor of the principal and faculty, to do full duty to the State. We all recognize the obligation of using the appropriation made for the maintenance of the school in such a way as to do the State best service. It is our desire to make the school contribute to the improvement of common schools by the better education of teachers, and that all who receive the bounty of the State in the form of free tuition, and other special advantages, shall consider themselves bound to render an equivalent to the State by better services in these schools. To this end, none are admitted who are not properly recommended and indorsed, with the exception explained above,

and all sign a statement of intention to teach in the schools of the State. The forms of pledge are given below, and the board will gladly consent to make them more definite and binding if the Department will so instruct the principal.

PLEDGE OF INTENTION TO TEACH.

We, the undersigned, having received appointments to the State Normal School at Buffalo, hereby declare (1) that our purpose in entering the school is to prepare ourselves for teaching; and (2) that it is our intention, as we acknowledge it to be our duty, to teach for a reasonable length of time in the schools of the State.

PLEDGE OF THE PREPARATORY CLASS.

We, the undersigned, hereby state, with the consent of our parents, that it is our intention to procure regular appointments to the State Normal School as soon as we reach the age of sixteen, and to go on with our studies in the school as a preparation for teaching.

GRADUATION.

In pursuance of the policy announced in the prospectus and otherwise, the faculty have not been anxious to push students on to graduation. It would have been possible to graduate a small class at the end of the first year, but a school can better afford to be without graduates for a year longer than to send out even a few imperfectly prepared for their work. It was specially necessary, as we are situated, that the first class to leave us should be well equipped with all the school can furnish. The character and success of that class will do much towards making our reputation for some years to come. The faculty have, therefore, rather delayed than hastened the time of the first graduation. At the close of the present term, four or five will have finished their course of study and practice, and at the end of the next term eighteen to twenty more. The four or five first mentioned will teach, if they find opportunity, during the summer term, and will graduate at the end

of the year with the others. This will give us additional opportunity of judging what use they can make of their training in the normal school, before they receive its diploma. Indeed, it would be good policy in all cases, if it were practicable, to send out those who have finished courses of study as "probationers" for six months, so that to the estimate of ability in the school of practice, under the eye of a critic teacher, might be added the estimate of success in an independent position.

At the beginning of the present term, several fragments of classes, which the gathering of a new school had brought together into classes imperfectly graded, were condensed into one class, which will probably be prepared to graduate from the highest or classical course at the end of the next year. The class will, in fact, be able to do more work than is laid down in the scheme of studies, and if all the class, at present twenty in number, should remain together till that time, we may confidently expect the members of it to be more than usually well qualified to fill advanced positions. Besides, the probability is that a class of almost or quite equal numbers will be ready at the same time to graduate from the elementary course.

Should all these hopes be realized, the end of the third year would find us with a list of *alumni*, or rather of *alumnae*, numbering not far from sixty. If the sixty should be good teachers, the character and fortunes of the school would be fairly settled.

THE JESSIE KETCHUM PRIZE MEDALS.

The late Jesse Ketchum, of Buffalo, was well known as a friend and benefactor of public schools. He long cherished the hope of seeing a normal school established in the city, and gave for that purpose the lot on which the school now stands. In honor of Mr. Ketchum, and to carry out his well-known wishes, his son-in-law, B. H. Brennan, Esq., transmitted, in September, 1871, to the mayor of the city "a deed of trust designed to establish a memorial fund for the benefit of the public schools of Buffalo," together with the sum of \$10,000,

the income of which is to be expended annually in the purchase of medals as prizes for meritorious conduct, and attainments in learning. Mr. Brennan expressly desired that the normal school should be included among the public schools of the city ; and, through the generosity of the trustees of the fund, a gold medal of the value of forty dollars as a prize of the first class, and a gold medal of the value of twenty dollars as a prize of the second class, have been assigned to the normal school and accepted by us as an annual gift. We were not called upon to discuss the general question of prizes in school, and, in the circumstances, felt ourselves at liberty to do only as we did. The fixing of the data on which the awards should be made was left to the board, subject only to the approval of the trustees of the fund, and the matter was referred by us to the faculty. They have very properly determined that skill in teaching shall be an important element in awarding the medals. The main points in their plan of award are these :

1. The competition for the medals shall be confined to the members of graduating classes, thus giving the opportunity of carrying off a prize to those only who go through the professional course of the school.

2. Scholarship, deportment and skill in teaching shall be separate items, each entering equally into the account.

3. Records kept in numbers shall not alone decide who is most worthy, but these modified by the judgment of the faculty as to the character, ability and promise of the student, and these specially with reference to merit and success as a teacher.

The first of these medals will be awarded to the class graduating in June next.

ACADEMIC AND COLLEGIATE DEPARTMENTS.

The plan of the board did not at first contemplate any academic department other than the collegiate. This would be to invite a rivalry with schools of a properly academic grade, which was not desired. A few, however, wished to join the normal classes without pledging themselves to teach ;

and as the number in the normal classes would for the present allow, permission to join these classes has not been restricted except on condition of paying tuition. These students are allowed no special privileges of any sort, and all receipts from tuition are devoted to the school. During the past year, reference books and apparatus were purchased with the money so received ; and it is proposed to purchase from the same fund, as soon as may be, a telescope, a microscope, and additional reference books for general use.

As reported last year, and as announced in the prospectus and circulars of the school, the board hoped and in part planned, with the consent of the Superintendent, to make this one, of the eight normal schools of the State, a normal college. Their idea was, that its course of study should be extended three or four years beyond the normal course, and that a grade of scholarship, at least equal to that for which academic degrees are usually granted, should be attainable in it, with the intention that this highest grade of learning should be, for the most part, given to the schools of the State. Their thought was, that more advanced study in the normal school, by even a small class, would elevate the spirit of scholarship in the whole school, and would do much towards impressing upon all, the truth, that sound learning is an inseparable attendant, if not a necessary element, of fruitful teaching. This was not to interfere with, but to supplement, the ordinary course of study, and to furnish a continued example of the culture and the ability which come with an extended course of liberal studies. The wish was, not to make this school out-rank the other schools, but, while not neglecting or thinking lightly of the elementary work which the great majority of students in all normal schools must do, to add to this something which might distinguish it from other schools. This hope is not abandoned, but is still cherished as capable of realization. Circumstances have not given it the impetus we had expected, but we still think the plan a feasible one. It has not seemed best to lay down a four years' course of study without students for the first year's work, but the

local board respectfully urges the Superintendent to give the scheme such official aid as he can.

WANTS OF THE SCHOOL.

The greatest want is a suitable building under our control for a boarding-hall. We have plenty of room for such a house on the school lot, and if one could be built and equipped plainly but comfortably for this purpose, board could be furnished at cost for all who attend school from abroad. The greater cost of board in the city than in the villages, in which the other normal schools are located, is very much to our disadvantage with all pupils who do not live at home.

The want of additional books of reference and of apparatus, particularly chemical apparatus, can be gradually supplied from the proceeds of tuition, but a small sum annually, above what can be spared from the regular appropriation, would add much to the efficiency of all departments.

The building is not in need of repair, except that, as reported last year, cracks in the walls, occasioned by the settling of the foundations and shrinking of the timbers, disfigure many of the rooms. The walks leading from the street to the building require new flagging, as a means of comfort and cleanliness.

The sum of fifteen hundred dollars will probably cover all necessary extra expenses for the year, and that sum the board respectfully asks the Legislature to grant.

DETAILED STATEMENT of Receipts and Expenditures of the Local Board of the Buffalo Normal School for the year ending September 30, 1872.

RECEIPTS.

Received from the State on account of annual appropriation ..	\$17,115 13
Received from the State on account of special appropriation ..	4,461 07
Received from tuition in academic department.....	240 00
Total receipts	<u>\$21,816 19</u>

EXPENDITURES.

On account of teachers' salaries for the year :

H. B. Buckham.....	\$2,500 00	
Wm. B. Wright	1,800 00	
Calvin Patterson	1,800 00	
David S. Kellicott.....	1,500 00	
Mark M. Maycock	600 00	
Chas. Sykes.....	500 00	
Geo. Hadley.....	750 00	
Laura G. Lovell	900 00	
Sarah Bostwick	900 00	
Mary J. Harmon (part of year).....	600 00	
Susan Hoxie	750 00	
Flora E. Crandall.....	150 00	
		\$12,750 00

On account of library, text books and apparatus :

Frank Hamlin, receiver, text-books.....	\$709 82	
Martin Taylor, text-books.....	751 75	
Frank Hamlin, receiver, text-books	2 70	
Breed & Lent, and others, reference books.....	126 66	
D. S. Kellicott, tools and sundries for laboratory,	25 00	
		1,615 43

On account of furniture :

Mead & Hunt, school desks and settees.....	\$150 00	
Hersee & Sons, chairs for chapel.....	56 75	
		206 75

On account of repairs and improvements, mainly for fitting up principal's residence and chemical and philosophical rooms :

W. A. Evans & Co., lumber	\$166 00	
Hart, Ball & Hart, plumbing.....	1,000 00	
D. W. C. Weed & Co, hardware	109 22	
James Duthie, carpenter's work.....	148 04	
James Dickie, lumber.....	864 55	
Valentine Brothers, bells and gongs.....	102 25	
John Keenan, mason work	51 95	
Hart, Ball & Hart, gas-fitting... ..	798 23	
John C. Post, oil and paint.....	78 68	
E. J. Cornell, painting	52 00	
George Strobel, carpenter's work	45 42	
John Spier, shrubs and labor for lawn.....	33 23	
		2,944 57

On account of janitor's wages:

Wm. Hopkins, from time of accepting building, by State, to opening of school.....	\$482 61	
Wm. Hopkins, balance to October 11, 1871.....	85 50	
Carried forward.....	\$568 11	\$17,516 75

Brought forward.....	\$568 11	\$17,516 75
Wm. Hackett, from October 11, 1871, to August 31, 1872.....	711 09	
		1,279 20

On account of contingent expenses :

First quarter :

H. B. Buckham, traveling and other expenses incurred in engaging teachers.....	\$74 70	
Postage on preliminary circular	6 00	
Postage on prospectus of school	15 25	
Postage on circulars of school of practice.....	2 98	
Letter postage.....	4 00	
Express charges	3 75	
Telegrams	1 00	
Sundries .....	.85	
		108 53

Second quarter :

H. B. Buckham, blank book for library.....	\$1 00	
Postage	3 50	
Paper ruled for records	1 75	
L. H. Chester & Co., making carpet	3 00	
Jewett & Co., coal shovel, hat hooks, screens, etc.,	9 75	
Mrs. Hogan, twelve days' house cleaning before school opened.....	15 00	
John Burns, putting coal into cellar.....	21 50	
R. English, brooms and brushes	7 50	
J. Ormsby, one cord hemlock wood	6 50	
Buffalo Gas Company, meter and gas to January 1, 1872.....	20 85	
H. B. Buckham, expenses in attending meeting of principals... ..	4 95	
Warren, Johnson & Co., printing and stationery,	125 68	
Lee & Loomis, coal.....	898 00	
		1,118 96

Third quarter :

H. B. Buckham, postage on annual circulars....:	\$10 25	
Postage on circular for city	8 12	
Letter postage.....	2 08	
Express charges.....	5 75	
Cloth for covering reference books.....	2 16	
Sundry small items.....	2 56	
Jewett & Co., foot scrapers.....	4 00	
Buffalo Gas Company, gas, January and February,	31 15	
Lee & Loomis, coal.....	626 01	
		687 08

Carried forward..... \$20,710 47

Brought forward..... \$20,710 47

Fourth quarter, and to September 30:

H. B. Buckham, letter postage.....	\$1 50	
Postage on circulars.....	4 35	
Express charges.....	1 92	
Cartage.....	2 37	
Sundries.....	4 63	
Buffalo Gas Co., March and April.....	20 30	
J. Voltge, dust pans, etc.....	8 10	
J. Castle, thermometers.....	15 00	
Warren & Co., printing and stationery.....	378 80	
Hart, Ball & Hart, repairing steam pipes.....	215 05	
Lee & Loomis, coal.....	228 82	
Lee & Loomis, coal.....	299 00	
A. Caspar, soap, mops and other supplies for house cleaning.....	18 43	
		1,188 27
Cash on hand, September 30, 1872.....		55 11
Total.....		<u>\$21,953 85</u>

SUMMARY OF RECEIPTS AND EXPENDITURES.

Total receipts from all sources.....	\$21,816 19
Due from State to balance.....	137 66
	<u>\$21,953 85</u>
Paid on account of teachers' salaries.....	\$12,750 00
Paid on account of books and apparatus.....	1,615 43
Paid on account of furniture.....	206 75
Paid on account of repairs and improvements.....	2,944 57
Paid on account of janitor's wages.....	1,279 20
Paid on account of contingent expenses, first quarter.....	106 53
Paid on account of contingent expenses, second quarter.....	1,118 96
Paid on account of contingent expenses, third quarter.....	687 03
Paid on account of contingent expenses, to September 30.....	1,188 27
Cash on hand, September 30, 1872.....	55 11
	<u>\$21,953 85</u>

ERIE COUNTY, ss.:

Nathan K. Hall, chairman, and William H. Greene, secretary, of the local board of the State Normal School at Buffalo, being duly sworn, say, and each for himself says, that the foregoing detailed statement of the receipts and expenditures of the said local board has been approved by the executive com-

mittee of the said board, and that he believes such statement to be correct.

N. K. HALL.

WM. H. GREENE.

Subscribed and sworn before me this }
3d day of January, 1873. }

EDWARD GAYER,

Notary Public in and for Erie County.

All of which is respectfully submitted.

WM. H. GREENE,

Secretary of Local Board.

BUFFALO, January 1, 1873.

SPECIAL ANNOUNCEMENT—CIRCULAR.

The next term of the Buffalo Normal School will begin on Wednesday, September 4th.

The school is open to all applicants of proper age and qualifications, who desire to prepare for the work of teaching in the public schools of the State. The plan of the school comprises the following particulars:

1. *A thorough Education in Subjects of Study.*—Three courses of study are arranged: an elementary, an advanced English and a classical. Students of ordinary ability can finish the first in one year, the second in two years, and the third in three years.

2. *A thorough Study of the Theory of Teaching.*—This is intended to embrace the philosophy of education, methods of instruction, principles of government, and, in short, all that the teacher can learn outside of the school he is to teach. This, for such as have finished one or other of the courses of study (and no others can be admitted to it) requires one full term or half year.

3. *Practice under Criticism in our Model School for another full term.*—Our school of practice is organized so as to represent the system of graded schools in the city of Buffalo. The students will have the opportunity of teaching

classes of different grades, as well as of observing the management and instruction of a well-ordered system of schools.

To graduate, therefore, from the elementary course, requires at the least two years, from the advanced English three years, and from the classical four years. It is not imperative that the study of subjects be pursued in this school. Students who can pass a good examination in these subjects may be admitted at once to the work of the professional year, but a thorough knowledge of them must be insisted upon, whether acquired with us or elsewhere.

Applicants must be at least sixteen years of age on entering the school, and must obtain from a school commissioner or a city superintendent a recommendation to the State Superintendent, by whom all appointments are to be made. They are further examined at the school when they enter, and must show a fair knowledge of the common branches. When once admitted to the school, they are entitled to its advantages until they have finished any of its courses of study. Tuition is free, and the necessary text-books are supplied without charge, except for unreasonable wear. It is not required that students shall finish the course without leaving the school for a time, if circumstances make it necessary, but it is very desirable to finish at least the work of a year without interruption. The school can be responsible only for graduates, though we shall be glad to assist, as far as is proper; all who attend it. We strongly urge upon all young persons, who intend to teach, that their own interest will be promoted by their graduating at a normal school.

Board will be provided, for such as desire it, in private families; those who wish for this assistance should apply to the principal as early as possible. The price of board is from four to six dollars a week.

Any further information, or copies of the circular containing the courses of study in full, may be obtained by addressing the principal.

WM. H. GREENE,

Secretary of Trustees.

HENRY B. BUCKHAM, A. M., *Principal.*

(L.)

FOURTH ANNUAL REPORT OF THE STATE
NORMAL AND TRAINING SCHOOL AT CORT-
LAND.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—According to the requirements of law, the local board of the State Normal and Training School at Cortland, New York, submit their fourth annual report.

The report is for the year beginning October 1, 1871, and ending September 30, 1872.

IMPROVEMENTS UPON THE GROUNDS.

During the spring and summer of 1872, the grounds were much remodeled in regard to the walks ; trees, deciduous and evergreen, were planted, and some portions of the grounds, not formerly so designed, were sodded. New fences were put up on the west and south sides of the grounds. These improvements were superintended by Mr. F. E. Knight, of Cortland.

The expenses of these improvements were about one thousand dollars, which the Legislature reappropriated for this purpose in May, 1872. This fund was appropriated two years before, but not being used it lapsed to the State, April 28, 1872.

CHANGES IN THE LOCAL BOARD.

On the 27th day of June, 1872, Mr. Arnold Stafford, a member of the local board from its first organization, was suddenly stricken down in death. Mr. Stafford, as a member of the committee on building and grounds, had at all times faithfully served the interests of the school.

In accordance with the provisions of law, the Superintendent of Public Instruction appointed Mr. Robert B. Smith, of Cortland, as a member of the local board, to fill vacancy caused by the death of Mr. Stafford. Mr. Smith's appointment bears date September 11, 1872.

CHANGES OF TEACHERS.

Miss Emily E. Cole, of the class of January 31, 1871, assumed charge of the primary department, February 14, 1872.

Miss Julia H. Willis, having resigned her position as critic in the primary department, January 30, 1872, Miss Mary E. Lester entered upon the duties of critic in that department February 14, 1872.

Mrs. H. E. M. Babcock, having resigned her position July 2, 1872, Miss Clara E. Booth, of the class of July 2, 1872, was appointed to fill the vacancy.

Miss Mary A. Hubbard, class of January 30, 1872, commenced her duties as principal of the intermediate department September 4, 1872, in place of Miss Helen K. Hubbard, who resigned her position July 2, 1872.

SALARIES.

The salaries now paid in the several departments are as follows:

Principal of the school.....	\$2,500 00
Department of Natural Science.....	1,700 00
Department of Latin and Greek	1,600 00
Department of Mathematics.....	1,400 00
Methods and Superintendent of Training School,	900 00
Department of Elocution and Rhetoric.....	750 00
Department of Modern Languages and Geog-	
raphy	700 00
Department of History and English Language,	700 00
Department of Vocal Music.....	300 00
Department of Drawing.....	250 00
Principal of Academic Department.....	800 00
Principal of Intermediate Department.....	700 00
Critic of Intermediate Department.....	700 00
Principal of Primary Department.....	600 00
Critic of Primary Department.....	600 00

Total per year.....	<u>\$14,200 00</u>
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LIBRARY.

During the year the text-book library was moved into the office, where convenient cases had been prepared for it.

The former library room is now occupied almost exclusively by the reference library. This library is, for its size, one of the most valuable to be found in connection with any school. Students have free daily access to the books, and the use made of the advantages afforded demonstrates the value of the collection to the school.

ATTENDANCE.

Attendance from October 1, 1871, to October 1, 1872.

Whole number in normal school	370
Whole number in training school:	
Academic department	61
Intermediate department.....	205
Primary department	281
	<hr/> 547
Total for the year.....	<hr/> 917 <hr/>

THE SCHOOL AS A NORMAL SCHOOL.

The following table shows the number of new students—names not appearing upon the rolls before—for each term during the history of the school:

No. term.		Gentlemen.	Ladies.	Total.
1	From March 3, 1869, to July 30, 1869	28	29	57
2	From September 8, 1869, to February 1, 1870	48	68	116
3	From February 16, 1870, to July 1, 1870	30	40	70
4	From September 14, 1870, to January 31, 1871	58	84	140
5	From February 13, 1871, to June 30, 1871	18	22	40
6	From September 6, 1871, to January 30, 1872	51	55	106
7	From February 14, 1872, to July 2, 1872	28	30	58
8	From September 4, 1872, to January 23, 1873	26	47	73
	Totals—different names.....	280	365	645

ATTENDANCE BY THE YEAR.

First year, ending September 30, 1869.....	57
Second year, ending September 30, 1870.....	322
Third year, ending September 30, 1871.....	401
Fourth year, ending September 30, 1872	370
Total, by years	<u>1,150</u>

Of the above, seventy-four have graduated and have since rendered the State most valuable service in educational work.

Another class is near its graduation, and still another large class will enter upon its graduating work at the beginning of next term.

Of those undergraduates who have been in attendance, five hundred and seventy-one in all, between three and four hundred, or over sixty per cent of the whole, have done more or less of educational work in the public schools of the State, during and since their connection with the school.

A comparison of the two tables above brings out the fact that the students have been very regular in their attendance for a series of terms. This gives much value to the statement that the work done in teaching by the undergraduates is most excellent, from their having enjoyed so long the advantages afforded by the school.

Whence the influential educational work accomplished by this school for the State, during the three and a half years of its existence, sums up as follows :

1. Seventy-four graduates, many of whom have been occupying very prominent places in teaching; two more classes near to their graduating work.

2. Over three hundred undergraduates have done a vast amount of teaching in the common schools of the State, during and since their connection with the school, and have taught much better because of this connection.

3. Last, but not least, the good that has been done to the cause of sound education for the masses, by a school not dependent upon individual tuition for support. This is no

small item in estimating the real value of any school to a community.

Surely this is no unworthy showing for the brief history of three and a half years of school work; for nearly five hundred intelligent and active minds have exerted an influence of no mean importance upon the pupils under their tuition.

The State may well feel gratified at the work accomplished by its normal schools; for years only add to the vigorous influence exerted by them.

DEPARTMENT OF NATURAL SCIENCE.

The appointments of this department are superior with regard to their practical utility. The additions during the year have been many, among them one of Ritchie's large rotary, automatic air-pumps.

There has also been added a large collection of stereopticon transparencies on the subject of natural history and physiology. These views were made expressly for this school by Mr. H. D. Rumsey, of Homer, N. Y., under the immediate supervision of the professor of the department.

There is also added a large collection of transparencies upon the following subjects: astronomy; geology; mineralogy; early art; ancient ruins; physical geography; historical architecture.

It is expected that there will soon be added another valuable collection, illustrating comparative anatomy. These transparencies will be made by Mr. Rumsey expressly for this department from original plates by B. Waterhouse Hawkins, of Sydenham, England.

The alumni and other students who have been connected with the school are doing much by their continued contributions to increase the value of the cabinets of natural history, mineralogy and geology. Valuable donations have been made by others, friends of general education.

FINANCIAL STATEMENT.

Receipts.

Amount on hand, October 1, 1871 (tuition, etc.),	\$1,334 63
Received from the State.....	22,976 30
Received from other sources (tuition and academic diplomas).....	381 00
Total.....	<u>\$24,691 93</u>

Disbursements.

Teachers' salaries	\$14,200 00
Library and apparatus.....	4,623 12
Improvements on grounds.....	143 93
Contingent expenses.....	4,009 25
Amount on hand, October 1, 1872 (tuition, etc.),	1,715 63
Total.....	<u>\$24,691 93</u>

Respectfully submitted.

HENRY S. RANDALL.

*President.*WM. NEWKIRK, *Secretary.*

DETAILED STATEMENT of Receipts and Audited Liabilities made by the Local Board of the State Normal and Training School, at Cortland, N. Y., for the year beginning with October 1, 1871, and ending with September 30, 1872.

RECEIPTS.

Amount on hand, October 1, 1871 (tuition, etc.)..	\$1,334 63
Received from the State.....	22,976 30
Received from other sources (tuition and academic diplomas),	381 00
Total	<u>\$24,691 93</u>

DISBURSEMENTS.

Teachers' Salaries.

James H. Hoese.....	\$2,500 00
Thomas B. Stowell.....	1,700 00
Norman F. Wright.....	1,600 00
Carried forward.....	<u>\$5,800 00</u>

Brought forward.....	\$5,800 00	
Frank S. Capen.....	1,400 00	
James H. Shultz.....	800 00	
Martha Roe.....	900 00	
M. Frances Hendrick.....	750 00	
Helen E. M. Babcock.....	700 00	
Sarah M. Sutton.....	700 00	
Mary Marsh (part time).....	800 00	
Mary Morton (part time).....	250 00	
Helen K. Hubbard.....	700 00	
Amanda J. Hopkins.....	700 00	
Mary E. Lester.....	600 00	
Julia H. Willis (half year).....	800 00	
Emily E. Cole (half year).....	800 00	
		\$14,200 00

Library and Apparatus.

Appleton & Co., D., text-books.....	\$9 00	
Bradford, G. W., text-books.....	18 60	
Cowperthwaite & Co., text-books.....	80 45	
Ginn Brothers, reference books.....	22 57	
Gurley, W. & L. E., mathematical apparatus.....	211 50	
Harper & Brothers, reference books.....	29 94	
Ivson, Blakeman, Taylor & Co., reference books,	234 78	
Ivson, Blakeman, Taylor & Co., text-books . . .	96 48	
Ledion, Julian, anatomical preparations.....	223 00	
Lippincott & Co., J. B., reference books.....	82 44	
Little, Brown & Co., reference books.....	216 81	
Mahan & Wallace, text-books.....	89 50	
Mather & Lyon, 114 plates for stereopticon.....	100 00	
McVicar, M., arithmetical apparatus.....	75 00	
Pease & Plaisted, oxygen-gas holder, per T. B. S.,	50 00	
Queen & Co., James W., apparatus, etc.....	1,156 84	
Ritchie & Sons, E. S., apparatus.....	341 25	
Roe, Martha, reference books.....	7 50	
Schermerhorn & Co., J. W., apparatus and books,	1,448 59	
Scribner, Armstrong & Co., reference books.....	210 97	
Sheldon & Co., text-books.....	23 40	
		4,623 12

Improvements on Grounds.

Holmes, Cleary & Co., planting trees and work on grounds.....	\$47 29	
McAllister, Robert, planting trees.....	71 00	
Stafford, Arnold, lumber and labor.....	25 64	
		143 93
Carried forward.....		\$18,967 05

Brought forward..... \$18,967 05

Contingent Expenses.

Bennett, L. H., janitor	\$600 00
Benton, H. F., lumber, office secretary	204 45
Bradford, G. W., stationery and chemicals.....	182 12
Brewer & Son, H., wood, dusters, etc.....	27 25
Carmichael, J. C., repairs, library tables, etc.....	54 65
Chamberlain, Smith & Co., supplies.....	573 06
Coon, H. W., piano rent.....	60 00
Darby, Miles E., janitor.....	150 00
Dean, W. S., labor	20 60
Doud, T. H., book-binding.....	1 00
Freeman, James, labor.....	7 00
Ginn Brothers, music charts.....	8 00
Hanscoin, P. L., printing labels.....	2 25
Homer & Cortland, gas company	121 90
Hooker, Wesley, printing	25 00
Hoose, J. H., traveling expenses, freight bills, etc.,	88 29
Hose Company, W. W., rent Taylor Hall.....	15 00
Iverson, Blakeman, Taylor & Co., stationery.....	26 00
Jarvis, H. A., 500 government envelopes	16 80
Jones, B. B., printing	38 75
Kinney, F. G., printing	12 00
Livermore, W. H., printing.	4 00
Mahan & Wallace, stationery.....	118 68
Merton, Nelson, labor	15 00
Molloy, Edward, printing	4 00
Newkirk & Smith, supplies.....	2 31
Nye, Daniel, labor.....	15 00
Office sundries	95 77
Pierce, Franklin, painting.....	41 00
Pomeroy, S. T., repairing organ	2 50
Randall, H. S., postage	8 00
Return fare, per J. H. H. (three terms)	389 93
Roe, Martha, ribbons for diplomas	22 50
Rogers, H. L., freight	35 00
Stowell, T. B., traveling expenses, etc.....	40 02
Sturdevant, Fish & Co., carpeting.....	8 25
Tisdale & Co., W. D., coal	1,052 00
Wickwire & Co., C. F., supplies.....	18 57
Wilson, P. A., labor	2 60
	<hr/>
	4,009 25
Total disbursements.....	<hr/> <hr/> \$22,976 80

Recapitulation.

Teachers' salaries.....	\$14,200 00	
Library and apparatus	4,623 13	
Improvements on grounds.	143 98	
Contingent expenses.....	4,009 25	
	<hr/>	\$22,976 30
Balance on hand, October 1, 1873.....		1,715 68
		<hr/>
Grand total		<u>\$24,691 98</u>

We hereby certify that we have examined the within statement of receipts and audited expenditures for the normal and training school at Cortland, during the past year, and believe the same to be correct.

HENRY S. RANDALL,
President.

WILLIAM NEWKIRK,
Secretary.

STATE OF NEW YORK, }
County of Cortland, } ss.:

Sworn and subscribed to before me this 6th day of January,
A. D. 1873.

[L. S.]

HOWARD J. HARRINGTON,
Notary Public.

GRADUATES.

FIRST COMMENCEMENT, FRIDAY, JULY 1, 1870.

Gentlemen.

Name.	Post-office.	County.
Fowler, Charles A	Binghamton	Broome.
Pearne, Wesley U	Oxford	Chenango.
Vanderburgh, Fred. A ..	Cortland	Cortland.

Ladies.

Brownell, L. Annie.....	Nyack	Rockland.
Cole, Sarah M	Elbridge	Onondaga.
Northrop, Ada.....	Homer.....	Cortland.
Ratliffe, Adaline A	Liberty	Sullivan.
Stewart, Kate R.....	Parksville	Sullivan.

Name.	Post-office.	County.	
Willis, Mary L.	Tully	Onondaga.	
Willis, Julia H.	Tully	Onondaga.	
Gentlemen			3
Ladies			7
Total.....			10

Class Organization.

Fowler, Charles A.	President.
Pearne, Wesley U.	Poet and Musician.
Vanderburgh, Fred. A. .	Vice-President and Historian.
Stewart, Kate R.	Secretary.
Willis, Julia H.	Prophetess.

Class day—Planting of Ivy—June 29, 1871.

SECOND COMMENCEMENT, TUESDAY, JANUARY 31, 1871.

Ladies.

Name.	Post-office.	County.
Bentley, Jenney L.	Cortland	Cortland.
Cole, Emily E.	Elbridge	Onondaga.
Finney, Madge M.	Binghamton	Broome.
Lincoln, Alice L.	Virgil	Cortland.
Lee, Mary E.	Marathon	Cortland.
Lester, Mary E.	Binghamton	Broome.
Pomeroy, Clara T.	Cortland	Cortland.
Pomeroy, Anna C.	Cortland	Cortland.
Perry, Mary Alice.	North Wilna	Jefferson.
Smith, Hattie A.	Clark's Factory ..	Delaware.
Stickney, Fanny... ..	Booneville	Oneida.
Tillinghast, Mary N.	Marathon	Cortland.

Ladies, total..... 12

Class Organization.

Cole, Emily E.	President.
Lester, Mary E.	Vice-Pres't, Poetess and Historian.
Lincoln, Alice L.	Prophetess.

Class day—Planting of Ivy—July 1, 1872.

THIRD COMMENCEMENT, FRIDAY, JUNE 30, 1871.

Gentlemen.

Name.	Post-office.	County.
Knox, Stratton S.....	Oquago	Broome..
Keeler, Melvin J.....	De Ruyter	Madison.
Robinson, William P...	Cortland	Cortland.
Shultz, James H.....	Virgil	Cortland.

Ladies.

Ainsworth, Ella A.....	East Lansing.....	Tompkins.
Brainard, Ella F.....	Cortland	Cortland.
Bostwick, Sarah.....	Newark	Wayne.
Brown, Sarah Abbie....	Harpersville	Broome.
Cately, Alice M.....	Tully	Onondaga.
Eels, Helen.....	Freetown	Cortland.
Fletcher, Sarah F.....	Cortland	Cortland.
Hull, Francelia A.....	Scott	Cortland.
Lewis, Ella M... ..	Lisle.....	Broome.
Miers, Amelia	Howe's Cave.....	Schoharie.
Mathewson, Ella L.....	Geneva	Cayuga.
Potter, Helen L.....	Union Valley....	Cortland.
Van Ness, Henrietta....	Greene	Chenango.
Wright, Florence M...	Greene	Chenango.
Gentlemen		4
Ladies		14
Total.....		18

Summary of Graduates to date.

Gentlemen	7
Ladies	33
Total.....	40

Class Organization.

Knox, Stratton S.....	President.
Keeler, Melvin J.....	Poet.
Shultz, James H	Secretary.

Bostwick, Sarah.....	Vice-president.
Fletcher, Sarah F.....	Historian.
Wright, Florence M.....	Treasurer.
Class day—Planting of Ivy—July 1, 1872.	

ALUMNI ASSOCIATION, ORGANIZED JUNE 30, 1872.

President *pro tempore*, Wesley U. Pearne.

Secretary *pro tempore*, Mary E. Lester.

Stratton S. Knox, Wesley U. Pearne, Emily E. Cole, Sarah Bostwick, Mary E. Lester, were appointed a committee to draft a constitution and by-laws, for effecting a permanent organization at the next meeting.

FOURTH COMMENCEMENT, TUESDAY, JANUARY 30, 1872.

Gentlemen.

Name.	Post-office.	County.
Murphy, Chauncey P....	Perry City	Schuyler,
Spencer, Wm. S.....	Blodgetts' Mills..	Broome.

Ladies.

Gaffney, Emma.....	Binghamton	Broome.
Gilbert, Flora A	Cortland	Cortland.
Hall, Emily A	Gulf Summit....	Broome.
Hawley, Helen.....	Taylor	Cortland.
Hubbard, Mary A.....	Norwich	Chenango.
Seacord, Mary K.....	Cortland	Cortland.
Tackabury, Libbie G....	Canastota	Madison.
Wiles, Emma A.....	Freetown	Cortland.
Woodruff, Julia E.....	Unadilla	Otsego.

Gentlemen	2
Ladies.....	9
Total.....	<hr/> 11 <hr/>

Class Organization.

Wm. S. Spencer.....	President and Orator.
Helen Hawley.....	Vice-President and Prophetess.

Libbie G. Tackabury Secretary.
 Emma Wiles Treasurer.
 Chauncey P. Murphy Historian.
 Emily A. Hall..... Poetess.
 Mary A. Hubbard Essayist.
 Class day July 1, 1873.

GRADUATES.

FIFTH COMMENCEMENT, JULY 2, 1872.

Gentlemen.

Name.	Post-office.	County.
Hermon S. Hopkins.....	Groton	Tompkins.
George E. Ryan	Virgil	Cortland.

Ladies.

Anna Black	Cortland	Cortland.
Clara E. Booth	Perry Centre	Wyoming.
Esther E. Baldwin	South Cortland ..	Cortland.
Frederica B. Camenga ...	South Brookfield,	Madison.
Cassie R. Fowler.....	York	Livingston.
Flora A. Greene	Groton	Tompkins.
Ida Griswold	South Cortland ..	Cortland.
Libbie M. Hall	Gulf Summit....	Broome.
Libbie L. Harris	Fabius	Onondaga.
Myra M. Hubbard	Norwich	Chenango.
Mary L. Hopkins.....	Cortland	Cortland.
Anna E. Kane.....	McLean.....	Tompkins.
Clara H. McGraw	Binghamton	Broome.
Edith H. McGraw	Binghamton	Broome.
Ella M. Maritt.....	Cortland	Cortland.
Elizaetta McLean	Clark's Factory ..	Delaware.
Julia F. Montgomery	Marathon	Cortland.
Carrie E. Richardson ...	Caroline Depot ..	Tompkins.
E. Bertha Smith	Cortland	Cortland.
S. Marie Stillman	De Ruyter	Madison.
Mary B. Willey.....	Sherburne.....	Chenango.

Gentlemen	2
Ladies	21
Total.....	<u>23</u>

Class Organization.

Clara E. Booth.....	President.
Libbie L. Harris	Vice-President.
Herman S. Hopkins	Secretary.
Flora A. Greene	Treasurer.
Cassie R. Fowler.....	Prophetess.
F. B. Camenga.....	Historian.
George E. Ryan	Orator.
Mary B. Willey.....	Essayist.
E. Bertha Smith	Poetess.
Class day	July 1, 1873.

SUMMARY OF GRADUATES TO DATE.

Gentlemen	11
Ladies	63
Total.....	<u>74</u>

SPECIAL ANNOUNCEMENT IN CIRCULAR OF JANUARY 1, 1872.

Board of Trustees.

Hon. Henry S. Randall, LL. D.,	Hon. H. R. Duel.
<i>President.</i>	Henry Brewer.
William Newkirk, <i>Secretary.</i>	F. Hyde, M. D.
Chas. C. Taylor, <i>Treasurer.</i>	Robert B. Smith.
Hon. Horatio Ballard.	Norman Chamberlain.

Faculty.

James H. Hoose, Ph. D., Principal, Mental Science, and Philosophy of Education.

N. F. Wright, A. M., Latin and Greek.

Frank S. Capert, A. M., Mathematics.

Thomas B. Stowell, A. M., Natural Science.

James H. Shultz, Professor of Academic Department.

Martha Roe, Superintendent of Practicing Schools, Methods and their application.

M. Frances Hendrick, Rhetoric, Elocution, Reading and Superintendent of Gymnastics.

Clara E. Booth, English, French and German.

Sarah M. Sutton, Methods, English.

Mary Marsh, Vocal Music.

Mary Morton, Drawing.

Mary A. Hubbard, Principal and Critic in Intermediate Department.

Amanda J. Hopkins, Methods, and Critic in Intermediate Department.

Emily E. Cole, Principal and Critic in Primary Department.

Mary E. Lester, Methods, and Critic in Primary Department.

Academic Department.

For those who purpose entering this department, the following information is given :

Applications for admission should be made, either in person or by letter, to the principal of the school, and should be accompanied by a careful statement of the character, habits and present attainments of candidates. No idle, insubordinate or dissipated pupil will be tolerated.

Students will be received at any time, but in no case for less than a quarter except by special arrangement; and no deduction in price of tuition will be made for those who enter within the first two, or leave within the last three weeks of the term; nor for absences during the term, except for sickness.

Classes out of the regular course will not be organized for the accommodation of students entering this department.

Courses of Study.

First—The Advanced English Course. *Second*—The Classical Course. These are nearly identical with the same courses in the normal department, except that they embrace no professional training.

Cost of Tuition.

Non-resident pupils will be charged the following rates of tuition per quarter: English Course, \$6.00; Classical, \$7.00.

Graduation.

Students, graduating from either of the courses in this department, are charged a graduation fee of five dollars.

GENERAL INFORMATION.

Location.

The village of Cortland is noted for its pleasant situation, the healthfulness of its climate, and the beauty of its surrounding scenery. It is situated midway between Syracuse and Binghamton, on the line of railroad connecting those places.

The Utica, Ithaca and Elmira railroad also passes through the village, making connections with the Midland and Southern Central railways.

Board.

Board, including furnished room, fuel and light, can be obtained in private families in the village, at prices ranging from \$4.00 to \$5.00 per week. Rooms for self-boarding can be easily obtained.

Pupils should reach Cortland at least one day before the opening of the term, and go directly to the normal school building, where they will be advised in regard to boarding places. Baggage may be left at the depot until rooms are secured, when it will be delivered free of charge.

The normal courses of instruction and other important information will be found in the Appendix (Document Q).

(M.)

**FOURTH ANNUAL REPORT OF THE STATE
NORMAL AND TRAINING SCHOOL AT FRE-
DONIA.**

In conformity with the provisions of chapter 466 of the Laws of 1866, the following report of the condition of the State Normal and Training School at Fredonia, for the year ending December 31, 1872, including statistical and financial statements for the year ending September 30, 1872, is submitted :

OFFICERS.

The general management of the school devolves upon the Superintendent of Public Instruction, as trustee.

FACULTY.

Rev. John W. Armstrong, D. D., Principal, Moral Science and Didactics.

J. M. Cassety, A. M., Principal of Academic Department, Algebra and Astronomy.

H. R. Sanford, A. M., Natural Sciences, Civil Government.

O. R. Burchard, A. M., Mathematics.

Rev. J. N. Fradenburgh, A. M., Ancient Languages and German.

Miss Maria Swanger, Methods in Elementary course.

Miss Elizabeth Richardson, A. M., Physical Geography and Objects.

Mrs. Kate B. Burchard, Composition, Rhetoric and English Literature.

Mrs. Z. G. Carruth, French and History.

Miss E. Theodosia Hodgkins, Principal of Senior Department.

Miss Kate A. Whitney, Principal of Junior Department.

Miss Mary A. Bemis, Principal of Primary Department.

Miss Carrie Ferrin, Assistant in Senior Department.

Miss Ida R. Noble, Assistant in Senior Department.

Miss Annie S. Burroughs, Assistant in Junior Department.

Miss Clara S. Whitney, Vocal Music.

The courses of study, and other important information, will be found in the general circular (Document Q).

The following table shows the receipts and expenditures on account of this school, during the fiscal year ending September 30, 1872 :

RECEIPTS.

Balance on hand, October 1, 1871 (tuition)	\$2,676 92
From the State, out of annual appropriation	17,556 10
From the State, out of special appropriation	1,800 00
From tuition in academic and training schools . .	857 20
Total	<u>\$22,890 22</u>

PAYMENTS.

For teachers' wages	\$15,650 00
For library, text-books and apparatus	113 95
For repairs and improvements	2,116 26
For all other expenses	4,582 10
	<u>\$22,462 31</u>
Balance on hand (tuition), October 1, 1872,	427 91
Total	<u>\$22,890 22</u>

DETAILED STATEMENT of Receipts and Expenditures for the year ending September 30, 1872.

RECEIPTS.

Balance on hand, October 1, 1871 (tuition)	\$2,676 92
From the State, out of annual appropriation	17,556 10
From the State, out of special appropriation	1,800 00
From tuition in academic and training schools	857 20
	<u>\$22,890 22</u>

EXPENDITURES.

For Teachers' Wages.

John W. Armstrong	\$2,500 00	
J. M. Cassety	1,600 00	
H. R. Sanford	1,500 00	
O. R. Burchard	1,500 00	
J. N. Fradenburgh	1,200 00	
Maria Swanger	1,200 00	
Elizabeth Richardson	800 00	
Mrs. Burchard	750 00	
Mrs. Z. G. Carruth.	350 00	
Ellen Wiltse	400 00	
Kate A. Whitney	600 00	
Ida R. Noble	600 00	
Carrie Ferrin	600 00	
E. Theodosia Hodgkins	700 00	
Mary A. Bemis	600 00	
Clara S. Whitney	250 00	
Annie Burroughs	300 00	
Jeannie Kinsman	200 00	
		\$15,650 00

For Library, Text-books and Apparatus.

J. W. Armstrong, books and apparatus ...	\$52 00	
J. C. Frisbie, books	40 20	
L. S. Howard & Son, books	21 75	
		118 95

For Repairs and Improvements.

J. M. Cassety, heating apparatus	\$87 00	
McDougall & Avery, repairing boiler, steam fixtures, etc.	187 06	
Elias Forbes & Co., gas fixtures	21 80	
Lewis T. Parker, painting	9 81	
H. J. Skinner, fence	1,800 00	
Porter Bros., repairs, etc.	11 09	
		2,116 26

For all other Expenses.

Elias Forbes & Co., gas	\$300 69	
W. McKinstry, printing and advertising	75 80	
D. A. Clark & Co., chemicals.	46 62	
W. W. Wright, janitor's services	988 48	
Scott & McCluer, hardware, supplies, etc.	86 11	
J. D. Maynard, glass, chemicals, etc.	17 95	
J. W. Armstrong, sundry disbursements	109 95	
Carried forward	\$1,575 60	\$17,880 21

Brought forward.....	\$1,575 60	\$17,880 21
J. W. Armstrong, mileage of students	225 82	
J. C. Frisbie, stationery	184 45	
Benton & Cushing, printing and advertising	38 00	
N. J. Jackson & Co., coal.....	1,382 50	
W. A. Adams, furniture	48 10	
Wm. B. Archibald, rent of organ.....	46 00	
Francis B. Parker, water	37 50	
Clark Bros. & Marsh, cloth for caulking	12 75	
Howard Bros., stationery	66 64	
S. M. Hamilton, coal.....	987 50	
D. L. Shepard, hardware	21 01	
D. W. Maynard, chemicals, etc.	6 55	
D. C. Clark, chemicals, etc.....	20 80	
Edward McGovern, inspecting boilers.....	11 00	
Amon L. Barmore, rustic window shades.....	64 16	
Curtis & Shepard, hardware	9 22	
		4,582 10
Total expenditures.....		<u>\$22,462 31</u>

REPORT OF PRINCIPAL.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

The principal of the Fredonia Normal and Training School begs leave to offer the following report :

The fourth year of the Fredonia Normal and Training School has been characterized by an increased degree of usefulness and influence. For this, it becomes us to return thanks to our Heavenly Father "from whom all blessings flow."

The design of the State, in organizing and supporting such schools, appears to have been more fully appreciated and more completely met by both teachers and pupils, than ever before. Growing out of the exigencies of the great educational system adopted by the Legislature, and intended to supply a deficiency not before provided for by the higher schools of the State, it was necessary that there should be something peculiar in their organization.

In establishing them, the State did not contemplate merely the forming and supporting of several academies or high schools, where the pupils might learn thoroughly the different branches

to be taught in the public schools. There were already many such academies and other schools, where this work could be done as well as in the normal schools, and at far less cost to the villages where they were located. The term *training*, constituting a part of their title, indicates that, to a sound and thorough scholarship wherever obtained, there would be added such a practical training in the art of organizing, teaching and governing schools, as must greatly increase the efficiency and usefulness of their graduates, and greatly elevate the tone and character of the schools they would teach.

Earnestly laboring for the accomplishment of this design, it is with no small pleasure that we can report the almost uniform and triumphant success of our graduates in the school-rooms of the county and State. The attention, which these results have attracted towards the "normal methods" of teaching and training, is one of the evidences of a gratifying progress in public opinion on educational matters.

CHANGES IN THE BOARD OF INSTRUCTION.

The only change, which has occurred in the board of instruction, is the resignation of Miss Kate Whitney, the principal teacher and critic of the Junior practicing school. Identified with the school from its reopening in 1869, she had brought her department to a high degree of advancement, and had acquired deserved popularity. We were happy to be able to secure, as her successor, Miss Jennie Kinsman, one of our graduates of the fall term of 1872, who is ably discharging the duties of the department.

IMPROVEMENTS NEEDED IN ACCOMMODATIONS.

Originally, the normal building was constructed without any adequate knowledge of the requirements of a normal school. More practicing rooms are needed.

It would aid us much if a glass partition were erected across each of the two large practicing rooms, cutting off fifteen feet from the back end, and the space subdivided into three practicing rooms for classes.

Both the library and the apparatus rooms are very inadequately supplied with cases.

An appropriation for meeting these wants is very desirable.

ATTENDANCE.

The attendance of students in the several departments, during the year ending September 30, 1872, was as follows :

In the normal department.....	305
academic department.....	145
senior department.....	214
junior department.....	200
primary department.....	85
Total.....	<u>949</u>

GRADUATES.—FIRST CLASS, TERM ENDING FEBRUARY 1ST, 1870.

Elementary Course.

Miss Ellen Carter	Laona, N. Y.
Mary Carlisle.....	Malone, N. Y.

SECOND CLASS—TERM ENDING JULY 1ST, 1870.

Miss Annie Burroughs	Portland, N. Y.
Mary A. Bemis..	Clymer, N. Y.
Ettie Cleland.....	Cassadaga, N. Y.
Hattie J. Gays	Dunkirk, N. Y.
Mary Hart.....	Fredonia, N. Y.
Henrietta B. Landon.....	Fredonia, N. Y.
Nettie Pringle.....	Fredonia, N. Y.
Hattie E. Sweet.....	Fredonia, N. Y.
M. Pamela Squires	Chenango Forks, N. Y.
Lizzie M. Schaffer.....	Fredonia, N. Y.
Luella Tinkham	Fredonia, N. Y.

Classical Course.

Ellen H. Clothier.....	Fredonia, N. Y.
Lucy M. Washburn	Fredonia, N. Y.

THIRD CLASS—TERM ENDING FEBRUARY 7TH, 1871.

Elementary Course.

Miss Ella J. Cummings.....	Arkwright, N. Y.
Mrs. R. V. Lewis.....	Dunkirk, N. Y.
Miss Ida R. Noble.....	Canton, N. Y.
Mary A. Saunders.....	Gowanda, N. Y.
Mary Wright.....	Sinclairville, N. Y.

Higher English Course.

Mr. Burton C. Crocker.....	Dunkirk, N. Y.
James E. Eaton.....	Gowanda, N. Y.

FOURTH CLASS—TERM ENDING JUNE 30TH, 1871.

Elementary Course.

Miss Ida Briggs.....	Stockton, N. Y.
Nellie Clothier	Fredonia, N. Y.
Adista Coon	Portville, N. Y.
Addie Daily	Fredonia, N. Y.
Carrie Ferrin.....	Ellington, N. Y.
Anna Hayes	Fredonia, N. Y.
Mrs. G. H. Hammond	Fredonia, N. Y.
Miss Mary Morissey	Sheridan Centre, N. Y.
Nettie Mark	Frewsburch, N. Y.
Nettie Platt.....	Hornellsville, N. Y.
Juliette Simmons.....	Poland Centre, N. Y.
Mary Simons.....	Belmont, N. Y.
Belle Spink	Fredonia, N. Y.
Nina Sheppard.....	Buffalo, N. Y.
Luella Wheelock	Fredonia, N. Y.
Clara Washburn	Indianapolis, Ind.

Higher English Course.

Elizabeth Richardson	Hamlet, N. Y.
Lillie Tabor.....	Tuscola, Ill.

Classical Course.

Hannah Enry	Fredonia, N. Y.
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FIFTH CLASS—TERM ENDING FEBRUARY 14TH, 1872.

Elementary Course.

Miss Tilla Brown	Fredonia, N. Y.
Maria Everts	Auburn, N. Y.
Jeannie Kinsman	Ellington, N. Y.
Alice Luther	Fredonia, N. Y.
Abbie Mark	Frewsburch, N. Y.
Martha Mitchell	Hartfield, N. Y.
Carrie McNaughton	Sinclairville, N. Y.
Ida Pierce	Fredonia, N. Y.
Hattie Shelley	Fredonia, N. Y.
Sarah Stevens	Fredonia, N. Y.
Joanna Toomey	Dunkirk, N. Y.
Hattie Beck	Sinclairville, N. Y.

Higher English Course.

Miss Carrie Ferrin	Ellington, N. Y.
Martha Mitchell	Hartfield, N. Y.
Frank Stebbins	Sheridan, N. Y.

SIXTH CLASS—TERM ENDING JULY 2D, 1872.

Elementary Course.

Miss Maria Blanchard	Sardinia, N. Y.
Mary Buckley	Wells Bridge, N. Y.
Mary Clizbe	Galway, N. Y.
Margaret S. Cushing	Fredonia, N. Y.
Hannah Cleaveland	Olean, N. Y.
Mary E. Clarke	Fredonia, N. Y.
Mary E. A. Clark	Point Peninsula, N. Y.
Clara De Wolff	Versailles, N. Y.
Florence Dennison	Forestville, N. Y.
Eva Eaton	Gowanda, N. Y.
Orpha Griswold	Brocton, N. Y.
Flora Hall	Perrysburgh, N. Y.
Ell Vene S. Little	Candor, N. Y.
Belle O'Neil	Dunkirk, N. Y.
Ellen Porter	Fredonia, N. Y.
Eva M. Parker	Little Valley, N. Y.

Miss Annie Smith.....	Marshfield, N. Y.
Georgia Tillinghast	Fredonia, N. Y.
Donna B. Thing.	Dunkirk, N. Y.
Theckla Thompson	Randolph, N. Y.
Estelle Warren.....	Fredonia, N. Y.
Kittie Wheelock.....	Groveland, N. Y.

Higher English Course.

Emma Bronson.....	Aurora, Ill.
Annie Burroughs.....	Portland, N. Y.
Hattie Beck	Sinclairville, N. Y.
Sarah Fay	Fredonia, N. Y.
Felicia Low.....	Fredonia, N. Y.
Etta Partridge	Dunkirk, N. Y.
Florence Taylor.....	Portland, N. Y.
Theckla Thompson	Randolph, N. Y.
Cornelia Willsie	Kiantone, N. Y.

Summary.

Number in 1st graduating class.....	2
Number in 2d graduating class.....	13
Number in 3d graduating class.....	7
Number in 4th graduating class.....	19
Number in 5th graduating class.....	14
Number in 6th graduating class.....	31
	<hr/>
Total to July 2d, 1872, three years.....	86
	<hr/>

CONCLUSION.

Nearly all of these graduates are teaching in this State at salaries varying from \$375 to \$1,000 a year. Their uniform success—not one has made a failure—and the excellent influence they exert upon the schools vindicate the wisdom of the normal school system, and justify the expenditure of all the care and money necessary to secure their highest efficiency.

Your most obedient servant,

JOHN W. ARMSTRONG,
Principal.

SPECIAL ANNOUNCEMENT IN CIRCULAR OF JANUARY 1, 1872.

Practicing Schools.

Persons, not living within the corporation limits of Fredonia village, may be admitted to the practicing schools as pupils, on the following terms:

Tuition for one term of twenty weeks in the academic, common English.....	\$10 00
Academic, higher English and languages	12 00
Senior	8 00
Primary and Junior	6 00

Payment will be required in advance for each half term.

It is intended that each of the practicing schools shall be a model school of its grade, and that the most approved methods of teaching shall be employed in every department.

Location.

The school is located in the beautiful and thriving village of Fredonia, about half an hour's ride on the street cars from Dunkirk. Fredonia is noted for the mildness and salubrity of its climate, and for the intelligence and refinement of its people.

Boarding.

Good board can be obtained at about \$4.50 per week.

The normal courses of instruction and other important information will be found in the Appendix (Document Q).

(N.)

FIRST ANNUAL REPORT OF THE LOCAL BOARD
OF THE STATE NORMAL AND TRAINING
SCHOOL AT GENESEO.

Hon. ABRAHAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In accordance with the requirements of section three, chapter 466 of the Laws of the State of New York, passed April 7th, 1866, entitled “An act in regard to Normal Schools,” the local board of the State Normal and Training School at Geneseo, N. Y., hereby transmits to the Legislature of the State of New York, through the Superintendent of Public Instruction, its first annual report.

This report covers the time from the opening of the school, September 13, 1871, to October 1st, 1872.

This school was opened September 13, 1871, and, notwithstanding some inconveniences and misfortunes, we are gratified to be able to report it in a very prosperous condition.

The faculty have used every endeavor to advance the interests of the school, by faithful effort and thorough instruction, and have been successful in inspiring the students with earnestness and zeal in study, and a spirit of self-control.

HEATING APPARATUS.

Twice during the year we were troubled by the failure of our steam heating apparatus. On each occasion we were obliged to replace a part of the boiler, and once to repair the steam coils that had been frozen. We do not anticipate any serious inconvenience from it hereafter, provided it be of sufficient power to warm the building properly.

The Legislature, with a liberality worthy the honor and dignity of that body, made adequate provision for the payment of the expenses incurred in making these unexpected repairs.

BUILDING.

The building is a beautiful brick structure of the modern style of architecture, and has the modern improvements of gas, steam and water ; yet it is not well adapted to our purposes. We have no assembly room, nor any room capable of seating more than one hundred and twelve persons. The class rooms are so small that they must be crowded, and so few in number that it has become necessary to use cloak rooms for the purpose of hearing recitations. With a continually increasing attendance, it is easy to see that these difficulties will be multiplied, and more room become an imperative necessity. Hence, the local board desires an appropriation to aid in constructing a suitable assembly room, and in making the necessary alterations consequent upon such an addition.

LIBRARIES AND APPARATUS.

The text-book library contains a sufficient number of works to answer the present purposes of the school, and there are also some books of reference.

There is no general library belonging to the school, but the students have the use of the Wadsworth library free of charge. This library contains about ten thousand volumes of standard and popular works and books of reference, making it very complete, and sufficiently extensive for the use of any student.

There are also free reading rooms, where students may find all the prominent daily, semi-weekly and weekly papers ; papers upon science, religion, literature, art and politics ; all the monthly magazines, and the American and foreign quarterlies and reviews.

The advantages to be gained from these two institutions cannot easily be estimated, and the opportunities afforded for literary culture are such as are seldom found in much larger towns.

The chemical and philosophical apparatus is very complete, and quite sufficient to illustrate all the elementary principles and facts of these sciences.

VALUATION OF PROPERTY.

The actual value of property at the date of this report, October 1st, 1872, is as follows :

Value of lot and buildings.....	\$82,000 00
Value of furniture.....	3,407 62
Value of library and apparatus.....	5,948 96
Total value.....	<u>\$91,356 58</u>

FINANCIAL STATEMENT.

Receipts.

Received from State Treasurer from regular appropriation.....	\$17,996 65
Received for tuition.....	1,919 85
Received from State Treasurer from special appropriation to repair heating apparatus....	1,500 00
Total receipts.....	<u>\$21,416 50</u>

Disbursements.

Expended from regular appropriation, as per detailed statement..	\$17,996 65
Expended from tuition fund, as per detailed statement.....	1,261 64
Expended from special appropriation, as per detailed statement..	183 07
Amount in hands of local board, October 1st, 1872.....	1,975 14
Total.....	<u>\$21,416 50</u>

DETAILED STATEMENT of the *Expenditures of the Local Board of the State Normal and Training School at Geneseo, for the year ending September 30, 1872.*

EXPENDITURES FROM REGULAR APPROPRIATION.

Expenses for month ending October 10th, 1871.

Voucher No. 1, Wm. J. Milne, salary.....	\$250 00
Voucher No. 2, Jerome Allen, salary	75 00
Voucher No. 3, R. A. Waterbury, salary.....	150 00
Voucher No. 4, J. B. Gorham, salary	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary.....	100 00
Voucher No. 7, Sara F. Fletcher, salary	70 00
Voucher No. 8, E. S. McMaster, salary.....	60 00
Voucher No. 9, Glora F. Bennett, salary	60 00
Voucher No. 10, Delia M. Day, salary.....	50 00
Voucher No. 11, Delia M. Vanderbelt, salary.....	40 00
Voucher No. 12, M. E. Parks, salary.....	30 00
Voucher No. 14, C. G. Hudnutt, telegraphing	9 53
Voucher No. 15, W. W. Killip, postage stamps	13 48
Voucher No. 16, Charles Jones, coal.....	955 31
Voucher No. 17, W. R. Walker & Son, stationery	5 75
Voucher No. 18, L. W. Crossett, stationery	77 08
Voucher No. 19, Jacob Clapper, wood	57 50
Voucher No. 21, J. W. Clement, printing.	73 80

 \$2,277 45
Expenses for month ending November 7th, 1871.

Voucher No. 1, Wm. J. Milne, salary	\$250 00
Voucher No. 2, Jerome Allen, salary	150 00
Voucher No. 3, R. A. Waterbury, salary	150 00
Voucher No. 4, J. B. Gorham, salary	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary.....	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary.....	60 00
Voucher No. 9, E. S. McMaster, salary	60 00
Voucher No. 10, Delia M. Day, salary	50 00
Voucher No. 11, Delia M. Vanderbelt, salary	40 00
Voucher No. 12, M. E. Parks, salary.....	30 00
Voucher No. 13, H. Howe, janitor.....	166 67
Voucher No. 14, W. H. Whiting, gas.....	75 00
Voucher No. 15, A. W. Butterway, furniture	26 25
Voucher No. 16, John Richmond, clocks.....	72 50

 \$1,500 43

Expenses for month ending December 5th, 1871.

Voucher No. 1,	Wm. J. Milne, salary ..	\$250 00
Voucher No. 2,	Jerome Allen, salary ..	150 00
Voucher No. 3,	R. A. Waterbury, salary ..	150 00
Voucher No. 4,	J. B. Gorham, salary ..	100 00
Voucher No. 5,	Helen Roby, salary ..	100 00
Voucher No. 6,	N. L. Van Husen, salary ..	100 00
Voucher No. 7,	Sara F. Fletcher, salary ..	70 00
Voucher No. 8,	E. S. McMaster, salary ..	60 00
Voucher No. 9,	Gloria F. Bennett, salary ..	60 00
Voucher No. 10,	Delia M. Day, salary ..	50 00
Voucher No. 11,	Delia M. Vanderbelt, salary ..	40 00
Voucher No. 12,	M. E. Parks, salary ..	80 00
Voucher No. 13,	H. Howe, janitor	66 66
Voucher No. 14,	W. H. Whiting, gas	107 00
Voucher No. 15,	P. R. B. Pierson, engraving ..	75 50

 \$1,409 16
Expenses for month ending January 9th, 1872.

Voucher No. 1,	William J. Milne, salary ..	\$250 00
Voucher No. 2,	Jerome Allen, salary ..	150 00
Voucher No. 3,	R. A. Waterbury, salary ..	150 00
Voucher No. 4,	J. B. Gorham, salary ..	100 00
Voucher No. 5,	N. L. Van Husen, salary ..	100 00
Voucher No. 6,	Helen Roby, salary ..	100 00
Voucher No. 7,	Sara F. Fletcher, salary ..	70 00
Voucher No. 8,	E. S. McMaster, salary ..	60 00
Voucher No. 9,	Gloria F. Bennett, salary ..	60 00
Voucher No. 10,	Delia M. Day, salary ..	50 00
Voucher No. 11,	Delia M. Vanderbelt, salary ..	40 00
Voucher No. 12,	Mary E. Parks, salary ..	80 00
Voucher No. 13,	H. Howe, janitor ..	66 66
Voucher No. 14,	Fohreck & Goebler, apparatus ..	164 75
Voucher No. 15,	William H. Whiting, gas ..	108 00
Voucher No. 16,	C. M. Vance, agent, express and freight ..	60 37
Voucher No. 17,	W. W. Killip, rent of piano and organs ..	49 75
Voucher No. 18,	H. Howe ..	88 57
Voucher No. 19,	W. H. Whiting, gas fittings ..	16 17
Voucher No. 20,	Jehn Carson, photographs ..	6 00

 \$1,665 27
Expenses for month ending February 6th, 1872.

Voucher No. 1,	William J. Milne, salary ..	\$250 00
Voucher No. 2,	Jerome Allen, salary ..	150 00

 Carried forward... \$400 00

Brought forward.....	\$400 00
Voucher No. 3, R. A. Waterbury, salary	150 00
Voucher No. 4, J. B. Gorham, salary.....	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary ,... ..	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary.....	60 00
Voucher No. 9, E. S. McMaster, salary.....	60 00
Voucher No. 10, Delia M. Day, salary.....	50 00
Voucher No. 11, Delia M. Vanderbelt, salary.....	40 00
Voucher No. 12, M. E. Parks, salary.....	30 00
Voucher No. 13, H. Howe, janitor.....	66 66
Voucher No. 15, Silas C. Green, repairs.....	57 15
Voucher No. 16, Richard Champ, masonry	27 00
Voucher No. 17, E. C. Ensign, labor on heating apparatus....	8 25
Voucher No. 18, J. B. Gorham, repairing blackboards.....	5 10
Voucher No. 19, C. M. Vance, agent, express charges.....	3 60
Voucher No. 20, B. E. Ensign, labor on heating apparatus....	3 00
	<hr/>
	\$1,330 76 <hr/>

Expenses for month ending March 12th, 1872.

Voucher No. 1, William J. Milne, salary.....	\$250 00
Voucher No. 2, Jérôme Allen, salary.....	150 00
Voucher No. 3, R. A. Waterbury, salary.....	150 00
Voucher No. 4, J. B. Gorham, salary	100 00
Voucher No. 5, Helen Roby, salary	100 00
Voucher No. 6, N. L. Van Husen, salary	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary.....	60 00
Voucher No. 9, Emma S. McMaster, salary.....	60 00
Voucher No. 10, Delia M. Day, salary.....	50 00
Voucher No. 11, M. E. Parks, salary.....	50 00
Voucher No. 12, Delia M. Vanderbelt, salary.....	40 00
Voucher No. 13, H. Howe, janitor.....	66 67
Voucher No. 14, H. R. Parish, coal	71 11
Voucher No. 15, E. R. Andrews, printing and stationery.....	53 97
Voucher No. 16, E. A. Sheldon, charts.....	36 00
Voucher No. 17, Silas C. Green, labor on water-pipes	35 85
Voucher No. 18, H. L. Johnson, lumber.....	24 13
Voucher No. 19, W. H. Whiting, lime and brick.....	10 65
Voucher No. 20, F. Mates, blacksmithing	7 70
Voucher No. 21, W. R. Walker & Son, stationery	6 15
Voucher No. 22, John McCoy, teaming	3 00
	<hr/>
	\$1,495 23 <hr/>

Expenses for month ending April 9th, 1872.

Voucher No. 1, Wm. J. Milne, salary	\$250 00
Voucher No. 2, Jerome Allen, salary	150 00
Voucher No. 3, R. A. Waterbury, salary.....	150 00
Voucher No. 4, J. B. Gorham, salary	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary	60 00
Voucher No. 9, E. S. McMaster, salary.....	60 00
Voucher No. 10, Delia M. Day, salary	50 00
Voucher No. 11, M. E. Parks, salary.....	50 00
Voucher No. 12, Delia M. Vanderbilt, salary.....	40 00
Voucher No. 13, H. Howe, janitor.....	66 67
Voucher No. 14, Clark & Maynard, books.....	12 00
Voucher No. 15, S. Julia Beach, mileage	7 45
Voucher No. 16, F. E. Wells, mileage	5 50
Voucher No. 17, Maggie C. Milne, mileage.....	1 38
Voucher No. 18, F. A. Winne, mileage	1 16
Voucher No. 19, Cornelia Clute, mileage.....	50
Voucher No. 20, W. H. Whiting, gas	104 40
Voucher No. 21, W. H. Whiting, gas	57 20
Voucher No. 22, W. H. Whiting, gas-pipe, etc.....	18 00
Voucher No. 23, W. H. Whiting, gas	45 60
Voucher No. 24, W. H. Whiting, fire-brick, lime, etc.....	8 42
Voucher No. 26, U. S. Express Company, charges	95 85
Voucher No. 27, J. Siddons & Son, plumbing	57 67
Voucher No. 32, W. W. Killip, postage stamps and tele- graphing.....	8 05
Voucher No. 33, M. Conway, masonry.....	7 80
Voucher No. 34, John Dennis, masonry.....	7 80
Voucher No. 36, Wm. Saxton, teaming	5 25
Voucher No. 37, Chas. Goheen, water lime	1 66
Voucher No. 40, E. S. Ritchie & Son, apparatus.....	100 44
Voucher No. 41, James W. Queen & Co., apparatus	68 00
Voucher No. 42, F. L. Pope & Co., apparatus	19 20
Voucher No. 43, S. C. Green, repairs.....	6 75
	<hr/>
	\$1,881 75

Expenses for the month ending May 7th, 1872.

Voucher No. 1, Wm. J. Milne, salary.....	\$250 00
Voucher No. 2, Jerome Allen, salary	150 00
Voucher No. 3, R. A. Waterbury, salary	150 00
Carried forward.....	<hr/>
	\$550 00

Brought forward.....	\$550 00
Voucher No. 4, J. B. Gorham, salary	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary.....	100 00
Voucher No. 7, Sara F. Fletcher, salary	70 00
Voucher No. 8, Glora F. Bennett, salary.....	60 00
Voucher No. 9, E. S. McMaster, salary	60 00
Voucher No. 10, Delia M. Day, salary	50 00
Voucher No. 11, M. E. Parks, salary.....	50 00
Voucher No. 12, Delia M. Vanderbilt, salary.....	40 00
Voucher No. 13, Charlotte Dykeman, teaching.....	25 00
Voucher No. 14, H. Howe, janitor... ..	66 66
Voucher No. 15, J. W. Clement, printing, etc.....	66 35
Voucher No. 16, A. S. Barnes & Co., books.....	18 00
Voucher No. 17, N. G. Hawley, binding	8 71
Voucher No. 18, W. W. Killip, rent of piano and organs	52 87
Voucher No. 19, W. H. Whiting, gas.....	104 00
Voucher No. 20, W. H. Whiting, gas.....	53 60
Voucher No. 23, Samuel Carey, labor on heating apparatus...	29 54
Voucher No. 24, Wm. H. Robinson, board of laborers.....	22 30
Voucher No. 25, Patrick Burns, labor attending masons.....	10 06
Voucher No. 26, Wm. J. Milne, atlas	9 00
Voucher No. 27, H. Crawford, drawing water.....	10 00
Voucher No. 28, A. A. Cox, lime and sand.....	4 00
Voucher No. 29, Jerome Stocking, repairing pump, etc.....	1 75
Voucher No. 30, Warren Luce, planting trees	4 19
	<hr/>
	\$1,665 93

Expenses for month ending June 4th, 1872.

Voucher No. 1, Wm. J. Milne, salary.. ..	\$250 00
Voucher No. 2, Jerome Allen, salary.....	150 00
Voucher No. 3, R. A. Waterbury, salary.....	150 00
Voucher No. 4, J. B. Gorham, salary.....	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary.....	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary... ..	60 00
Voucher No. 9, E. S. McMaster, salary	60 00
Voucher No. 10, Delia M. Day, salary.....	50 00
Voucher No. 11, Mary E. Parks, salary....	50 00
Voucher No. 12, Delia M. Vanderbilt, salary	40 00
Voucher No. 13, H. Howe, janitor.....	66 67
Voucher No. 14, Charles Jones, coal.....	700 00
	<hr/>
Carried forward.....	\$1,946 67

Brought forward.....	\$1,946 67
Voucher No. 15, J. W. Chapman, slate and slating.....	58 90
Voucher No. 16, W. W. Killip, telegraphing.....	90
Voucher No. 17, L. W. Crossett, stationery.....	45 32
Voucher No. 18, J. W. Clement, printing.....	12 65
Voucher No. 19, Henner & Parker, trees.....	18 00
	<hr/>
	\$2,082 44
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Expenses for month ending July 2d, 1872.

Voucher No. 1, Wm. J. Milne, salary.....	\$250 00
Voucher No. 2, Jerome Allen, salary.....	150 00
Voucher No. 3, R. A. Waterbury, salary.....	150 00
Voucher No. 4, J. B. Gorham, salary.....	100 00
Voucher No. 5, Helen Roby, salary.....	100 00
Voucher No. 6, N. L. Van Husen, salary.....	100 00
Voucher No. 7, Sara F. Fletcher, salary.....	70 00
Voucher No. 8, Glora F. Bennett, salary.....	60 00
Voucher No. 9, E. S. McMaster, salary.....	60 00
Voucher No. 10, Delia M. Day, salary.....	50 00
Voucher No. 11, Mary E. Parks, salary.....	50 00
Voucher No. 12, Delia M. Vanderbilt, salary.....	40 00
Voucher No. 13, H. Howe, janitor.....	66 67
Voucher No. 14, C. F. Doty & Co., hardware, stoves, etc.....	527 48
Voucher No. 15, J. C. Larwill, labor and material.....	815 00
Voucher No. 16, E. A. Pickard, labor and material.....	251 34
Voucher No. 17, M. W. Chase, ink-wells.....	30 00
Voucher No. 18, W. H. Whiting, gas.....	61 60
Voucher No. 19, W. W. Killip, rent of piano and organs.....	52 87
Voucher No. 20, Thomas Maloney, teaming.....	18 00
Voucher No. 21, Walter Yorks, boxing trees.....	5 00
Voucher No. 22, John McCoy, teaming.....	2 00
Voucher No. 23, C. O. Beach & Co., carpets and furniture...	104 87
Voucher No. 24, John Siddons & Sons, plumbing.....	62 29
Voucher No. 25, E. A. Pickard, glazing.....	9 10
Voucher No. 26, H. Howe, making carriage-block.....	4 42
Voucher No. 27, J. B. Gorham, repairing blackboards.....	2 60
	<hr/>
	\$2,688 24
	<hr/>

Summary.

Expenses for month ending October 10th, 1871.....	\$2,277 45
Expenses for month ending November 7th, 1871.....	1,500 42
Expenses for month ending December 5th, 1871.....	1,409 16
Expenses for month ending January 9th, 1872.....	1,665 27
	<hr/>
Carried forward.....	\$6,852 30

Brought forward.....	\$6,852 30
Expenses for month ending February 6th, 1872	1,330 76
Expenses for month ending March 12th, 1872.....	1,495 23
Expenses for month ending April 9th, 1872	1,881 75
Expenses for month ending May 7th, 1872	1,665 93
Expenses for month ending June 4th, 1872	2,062 44
Expenses for month ending July 2d, 1872.....	2,688 24
Total	<u>\$17,996 65</u>

Expenditures from Tuition Fund.

Paid J. C. Larwill for building privies, and repairs.....	\$755 38
Paid John M. Milne for teaching.....	860 00
Paid Stellar Tellurian Co. for apparatus.....	146 26
	<u>\$1,261 64</u>

Expenditures from Special Appropriation.

Paid C. F. Doty & Co. for use of stoves, etc.	\$85 48
Paid H. Howe, boarding laborers	15 62
Paid J. C. Larwill for boxing air-draughts and coils	70 17
Paid J. W. McCone, labor.....	8 00
Paid F. W. Mates, blacksmithing	6 85
Paid P. Crystal, teaming	2 00
	<u>\$188 07</u>

We hereby certify that we have examined the foregoing statement of receipts and audited expenditures for the State Normal and Training School at Geneseo, N. Y., for the year ending September 30th, 1872, and believe the same to be correct.

H. ALLEN,
President pro tem.

W. E. LAUDERDALE,
Secretary.

Sworn and subscribed to before me, }
this 31st day of December, 1872. }

JAMES J. CONE,
Notary Public.

ATTENDANCE.

The whole number of students enrolled from September 13, 1871, to October 1st, 1872, was as follows :

In normal school.....	191
In academic department	157
In intermediate department	151
In primary department	183
Total.....	<u>682</u>

GRADUATES.

At the close of the first school year the following persons received diplomas :

Classical Course.

John N. Drake,	Frank A. Winne,
Frank E. Wells,	Gloria F. Bennett.

Advanced English.

Ella A. Chamberlin,	Ava Wilkinson.
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Elementary Training.

Mary P. Allen,	Maggie L. McNaughton,
Julia M. Skinner,	Sarah L. Watson.

All the above, and many others who are not graduates, but who have attended the school during some portion of the year, are engaged in teaching in the schools of this State.

SPECIAL ANNOUNCEMENT IN CIRCULAR OF NOVEMBER 1, 1872.

Local Board.

Gen. James Wood, <i>President.</i>	Peter Miller.
Dr. W. E. Lauderdale, <i>Secretary.</i>	Adoniram J. Abbott.
Hon. Hezekiah Allen, <i>Treasurer.</i>	Daniel Bigelow.
John Rorbach.	Hon. Solomon Hubbard.
James W. Wadsworth.	

Faculty.

William J. Milne, A. M., Principal; Didactics and Moral Philosophy.

Jerome Allen, A. M., Natural Sciences.

R. A. Waterbury, A. M., Mathematics.

John M. Milne, Academic Department, and Ancient Language.

Miss Helen Roby, Preceptress; Rhetoric and Composition.

Miss N. L. Van Husen, Elementary Methods.

Miss Emma S. McMaster, English Grammar.

Miss Glora F. Bennett, Mathematics and German.

Miss Ella A. Chamberlin, History and Geography.

Mrs. Sara Fletcher, Critic and Head Teacher of Intermediate Department.

Miss Delia M. Vanderbilt, Critic in Intermediate Department.

Miss Delia M. Day, Critic and Head Teacher of Primary Department.

Miss Mary P. Allen, Critic in Primary Department.

Miss Mary E. Parks, Vocal Music.

Mrs. Charlotte Dykeman Himes, Elocution.

Miss F. Melaine Goddard, Drawing and Painting.

Mrs. W. K. Walker, Instrumental Music.

Location.

The village of Geneseo is delightfully situated in the valley of the Genesee, thirty miles south of Rochester, on the railroad leading from Rochester to Dansville. Students living on the line of the New York Central railroad will take the cars to Rochester, thence to Avon by Genesee Valley railroad, and thence to Geneseo. Students coming by the Erie railway take the cars to Avon and thence to Geneseo.

Advantages.

The school is supplied with a complete text-book library, containing, besides the works used in the school, others for reference. The students have free access to the Wadsworth

library, which contains nearly ten thousand volumes. There is, besides, a public reading room where can be found all the leading daily papers, papers on science, literature, art and religion, and all the monthlies and quarterlies, making it one of the most valuable aids to the student. The chemical and philosophical apparatus of the school is all new, and extensive enough to enable the student to perform all experiments of an elementary course.

Boarding.

Board can be obtained in private families at rates varying from \$3.50 to \$4.50 per week, exclusive of washing. The boarding hall in the normal school building is designed exclusively for ladies, in which board, including furnished room, fuel, lights and washing, is furnished at \$3.75 per week.

All who board in the boarding hall are required to furnish their own towels, napkins, sheets, pillow-cases and comforters; each of which, as well as every article of clothing, should be distinctly marked with the owner's name in full.

On arriving at Geneseo, students should go immediately to the normal school building, where they will meet some member of the faculty who will render them all necessary assistance in securing boarding places.

(O.)

SIXTH ANNUAL REPORT OF THE STATE NORMAL AND TRAINING SCHOOL AT OSWEGO.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—We have the honor of herewith submitting to you the annual report of the State Normal and Training School at Oswego, for the year ending September 30, 1872.

We have no suggestion to make, beyond what was presented in the last report in regard to a Kindergarten department and enlarged accommodations for the school. These additional facilities would greatly enhance the usefulness of the school; and we desire again to urge them upon your attention. The school continues in as prosperous a condition as ever.

ATTENDANCE OF STUDENTS.

	Registered.	Average.
Normal department.....	420	212
Practicing. { Junior.....	204	155
{ Primary.....	249	139
Total.....	873	506

Average age of ladies in attendance..... 21

Average age of gentlemen in attendance..... 21

Number of graduates from normal department :

Ladies.	60
Gentlemen	6
	66

CHANGES OF TEACHERS.

The following changes of teachers have occurred during the year :

Prof. E. A. Strong, on account of the ill health of his family, resigned his position at the close of the spring term, and Dr. N. T. True, of the State of Maine, was appointed to fill the vacancy.

Miss Mary Ryan, teacher of reading, resigned at the close of the spring term, to take a more lucrative position in the New Jersey State Normal School at Trenton. Miss Mary R. Alling was appointed to fill the vacancy.

Miss Kate Davis, teacher of primary methods and critic in the primary department of the practice school, resigned at the close of the spring term to take a more lucrative position in a private school at Oak Park, Ill., and Miss Defransa Hall was appointed to fill the vacancy.

Mr. John G. Parkhurst was appointed at the beginning of the September term, to teach vocal music in the place of Miss Mary Davis, resigned.

Mr. William M. Aber, who rendered assistance last year as an undergraduate, has since graduated, and has been appointed to do full work. The new teachers are doing good service and all departments of the school are working to the entire satisfaction of the board.

GILBERT MOLLISON,
President.

J. K. Post, *Secretary.*

*DETAILED STATEMENT of Receipts and Expenditures of the
Local Board of the Oswego Normal and Training School,
for the year ending September 30th, 1872.*

RECEIPTS.

Received from the State on requisition, being amount of annual appropriation	\$18,000 00
Received from State on requisition, amount appropriated for heating apparatus	10,000 00
Received from State, balance of last year's appropriation	281 89
Total receipts	<u>\$28,281 89</u>

DISBURSEMENTS.

Teachers' Wages.

E. A. Sheldon	\$1,875 00
E. A. Strong	2,000 00
I. B. Poucher	1,270 00
Herman Krusi	1,268 00
M. S. Cooper	1,140 00
S. J. Armstrong	1,000 00
E. S. Lane	250 00
Mary Ryan	650 00
E. S. Hutchens	600 00
Kate Davis	150 00
M. C. McCumber	250 00
Wm. M. Aber	450 00
Mary E. Davis	275 00
C. L. Miller	30 00
Isabella Parsells	10 00
D. H. Cruttenden	1,200 00
	<hr/>
	\$12,418 00

Furniture Account.

R. Bickford	\$201 61
J. Bickford, Jr.	39 55
Bickford & Gillett	359 00
J. J. Hart, carpets and oil cloths.	40 62
H. B. Smith & Co., steam-heating apparatus	10,000 00
	<hr/>
	\$10,640 78

Apparatus Account.

Bryant & Co., celestial indicator	\$25 00
Rohrbeck & Goebeler, chemical apparatus	30 93
M. McVicar, mathematical apparatus	75 00
	<hr/>
	\$180 93

Library Account.

Sheldon & Co., books	\$57 25
William Wood, chemistries	11 25
D. H. Cruttenden, grammars	40 00
Ginn Brothers, Greek Lexicons	14 40
Iverson, Blakeman, Taylor & Co., books	15 00
I. G. Wynkoop, music books	2 25
Woolworth, Ainsworth & Co., books	54 00
	<hr/>
	\$194 15

Contingent Expenses.

P. Malone, janitor's service.....	\$400 00
Advertiser and Times, printing.....	84 00
Oswego Water-works, water rent.....	39 00
J. D. Hammond, music.....	11 65
Barrett, Calvert & Aber, stationery.....	180 53
Kinyon, Smith & Co., hardware.....	80
A. G. Cooke, coal.....	500 40
C. H. Butler, chemicals.....	7 68
E. A. Strong, disbursements.....	27 31
L. Gordon, ribbon for diplomas.....	35 25
Lake & Co., mason work, etc.....	13 64
R. J. Oliphant, printing....	283 48
P. Malone, cleaning and labor.....	77 25
Daniel Perry, trees.....	8 50
Lippincott & Kinyon, lumber.....	24 07
Oswego Gas Light Company, gas.....	149 59
Chas. Scribner & Co., parchment, diplomas.....	45 00
J. N. Collins & Co., hardware.....	145 61
M. Sheridan, draining.....	250 40
Skinner & Colnon, painting.....	218 69
Ratigan & Culkin, mason work, etc.....	178 82
Gardner Bros., carpenter work and materials.....	697 26
E. A. Sheldon, disbursements.....	119 81
Hamilton, Coe & Co., stationery.....	26 78
Peter Collette, labor.....	54 75
John Hughes, labor.....	12 00
J. L. Poole, paper and papering.....	54 17
Wallace, Davis & Co., fixing stoves.....	7 63
N. M. Andrews, matches.....	3 98
A. P. Williams, fixing doors.....	4 08
R. Dempsey, labor.....	7 80
Parkhurst Bros., music.....	7 10
Oliver Peck, rent of piano and tuning.....	17 00
Sidney Van Buren, labor.....	18 00
August Koehley, book-binding.....	68 65
Thomas Donohue, labor.....	35 63
William Aber, twine.....	2 35
City Board of Education, coal.....	112 20
Oswego Printing Co., printing.....	16 50
N. M. Rowe, charcoal.....	35 55
Caleb Green, paper hanging.....	18 52
Mileage of pupils.....	996 61

 \$4,897 53

 Total disbursements..... \$28,281 89

FINANCIAL STATEMENT—*Summary.*

RECEIPTS.

Received from the State.....	\$28,281 39
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DISBURSEMENTS.

Teachers' wages	\$12,418 00
Contingent expenses	4,897 53
Library account	194 15
Apparatus account	130 93
Furniture account	10,640 78
Total	\$28,281 39

LIABILITIES.

Balance of requisition of June 29th, 1872	\$1,904 01
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GILBERT MOLLISON,

*President.*J. K. Post, *Secretary.*

STATE OF NEW YORK, } ss.:
 County of Oswego, }

Sworn and subscribed to before me, this 10th day of
 January, 1873.

J. SHEPARD FITCH,

Notary Public.

OFFICERS.

STATE DEPARTMENT OF PUBLIC INSTRUCTION.

Abram B. Weaver, *Superintendent.*Edward Danforth, *Deputy Superintendent.**Local Board.*Gilbert Mollison, *President.*

David Harmon.

John K. Post, *Secretary.*

Theodore Irwin.

Daniel G. Fort, *Treasurer.*

Alanson S. Page.

Samuel B. Johnson.

Benjamin Doolittle.

Thomas S. Mott.

Abner C. Mattoon.

John M. Barrow.

Delos De Wolf.

Thomson Kingsford.

Faculty.

Edward A. Sheldon, A. M., Didactics.

Nathaniel T. True, A. M., M. D., Natural Sciences.

Isaac B. Poucher, A. M., Arithmetic and Algebra.

Herman Krusi, Geometry, History and Philosophy of Education, French and German.

David H. Cruttenden, A. M., Lecturer on Languages.

William M. Aber, Latin, Greek, History, Botany and Book-keeping.

John G. Parkhurst, Vocal Music.

Matilda S. Cooper, English Grammar, Methods of Teaching Grammar, Number and Object-lessons.

Sarah J. Armstrong, Rhetoric, English Literature and Composition.

Mary R. Alling, Gymnastics, Spelling, Reading and Elocution.

Emma S. Hutchins, Drawing and Penmanship.

Martha McCumber, Geography and Methods in Geography and Botany, and Principal of Junior Practice School.

Defransa Hall, Primary Methods, and Principal of Primary Practice School.

Mary W. Hunt, Critic in the Junior Practice School.

Kate Whiting, Critic in the Primary Practice School.

GRADUATES FOR THE TERM ENDING JANUARY 30, 1872.

Elementary English Class.

Balch, E. Alice.

Reynolds, Myra M.

Bannister, Elvira.

Rice, Emily J.

Crum, Ellen.

Sheak, Elizabeth.

Ingraham, Lucretia F.

Sikes, Almira E.

Jayne, S. Augusta.

Stoddard, M. Louise.

Williams, Rose B.

Advanced English Class.

Cusick, Mary.	Roberts, Amy J.
Jackson, Margaret.	Southwell, Alfaretta
Miller, C. Lucretia.	Steber, Emma A.
Parsels, Isabelle.	Trask, Adele.
Rice, Anna A.	Williams, S. Ida.

Classical Class.

Burt, Mary H.	Worthington, Eleanor.
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GRADUATES FOR TERM ENDING JULY 2, 1872.

Elementary English Class.

Adriance, Julia L.	Locke, Helen E.
Backer, Amy A.	Lynch, Helen.
Bennett, Emeline M.	Matheson, Frances L.
Blair, Charlotte M.	Miller, Sarah H.
Bush, Arthine A.	Moore, Adelaide G.
Bretts, Melissa M.	Morel, Sophia L.
Clubbs, S. Anna.	Phair, Mary A.
Davis, Mary E.	Rollinson, Elizabeth G.
Edwards, Adeline S.	Sikes, Viletta G.
Gillespie, Mary A.	Sisson, Emma D.
Green, Ella H.	Smith, Lena M.
Hubbard, Grace A.	Stockwell, Frances C.

Wait, Susan A.

Advanced English Class.

Churchill, Octa G.	Ormiston, Julia E.
Crum, Taylor.	Payne, Augusta F.
Dewey, Lola M.	Piersall, Josephine M.
Edwards, D. Sophia.	Royce, Millicent A.
Houghton, Mary F.	Smith, Cora A.
McLellan, John W.	Stevens, Harriet E.

Classical Class.

Aber, William M.	Meigler, Mary J.
Barrett, H. Elbert.	Stimets, Charles C.
Farnham, Le Roy D.	Williams, M. Alice.

CATALOGUE OF GRADUATES.

Complete list of the names of the graduates, including dates of graduation, and also the salary of each so far as known.

REFERENCES USED IN LIST.—* Graduated from Elementary English Department. † Graduated from Advanced English Department. ‡ Graduated from Classical English Department. ¶ Left the profession. † Not teaching. § Married.

Names.	Dates of Graduation.	Salaries.
Aber, William M. * † ‡	July 2, 1872	\$1,000
Adriance, Julia L. *	July 2, 1872	600
Allen, John G. †	January 30, 1871	1,500
Allen, Margaret A. * a	January 30, 1871	400
Alling, Mary R. *	July 6, 1869	800
Anderson, Medora C. *	February 6, 1867	\$ 450
Andrews, Esther A. *	Class of 1863	1,000
Andrews, Jane *	Class of 1862	1,000
Andrews, Margaret L. *	Class of 1864	¶ §
Aplin, K. Louise *	July 6, 1869	.....
Armstrong, Clara J. *	July 8, 1868	1,000
Armstrong, Sarah J. * b	February 6, 1867	1,000
Arnold, Fanny †	July 8, 1868	550
Arnold, Helen M. *	February 8, 1869	325
Arnold, Marcia A. †	January 30, 1871	475
Avery, Jennie H. † c	July 1, 1870	800
Backer, Amy A. *	July 2, 1872	|
Bailey, Alice F. *	July 6, 1869	|
Balch, E. Alice *	January 30, 1872	500
Bannister, Elvira *	January 30, 1872	400
Barber, Mary S. *	Class of 1862	400
Barker, Hannah J. †	February 8, 1869	500
Barker, Mary *	Class of 1862	¶ §
Barlow, Mary E. *	July 10, 1867	|
Barrett, H. Elbert * † ‡	July 2, 1872	900
Barstow, Ellen L. *	February 6, 1866	¶ §
Barth, Rella J. *	July 1, 1870	800
Bassett, Wayland G. S. †	February 1, 1870	|
Becker, Helen. *	Class of 1862	¶ §
Beaman, Mary E. * †	July 6, 1869	700
Beeman, H. Augusta * †	July 8, 1871	600
Benedict, Harriet N. *	July 10, 1867	400
Bennett, Emeline M. *	July 2, 1872	500
Bennett, Ida W. † d	July 6, 1869	400
Bettis, Addie F. * e	February 8, 1869	
Bishop, Electa R. *	July 10, 1867	600

a † July 3, 1871.

c * January 30, 1871.

e Died September 6, 1871.

b † July 10, 1867.

d * February 1, 1870.

Names.	Dates of Graduation.	Salaries.
Black, Jenny*.....	Class of 1862.....	1
Blackwood, Belle*.....	February 6, 1866.....	\$525
Blair, Charlotte M.*.....	July 2, 1872.....	450
Blasdell, Susan*.....	February 3, 1869.....	75
Blood, Eliza A.*.....	Class of 1862.....	550
Bloomer, Jennie*.....	July 6, 1869.....	500
Bond, Maggie L.*.....	Class of 1865.....	400
Boyd, Andrew J.†.....	February 5, 1868.....	1
Bradt, H. Amelia*.....	February 6, 1866.....	75
Brant, Alida R.* ^f	February 6, 1867.....	
Brant, Louisa H.*.....	Class of 1863.....	75
Brennan, Kate S.*.....	July 3, 1871.....	600
Brewster, Sarah P.* ^g	Class of 1862.....	
Brigham, Elva M.*.....	July 3, 1871.....	400
Brown, Ada B.*.....	February 6, 1867.....	75
Brown, Amelia*.....	July 10, 1867.....	525
Brown, Manily T.†.....	February 3, 1869.....	1,200
Bruce, Ellen M.*.....	Class of 1862.....	525
Bruce, Ida.†.....	February 1, 1870.....	1,500
Bryan, Mary*.....	Class of 1865.....	450
Bryant, Marie E.*.....	February 6, 1866.....	75
Bunnell, Hannah K.*.....	Class of 1863.....	600
Burchard, Oscar R.†.....	July 6, 1869.....	1,500
Burke, Ellen B.*.....	July 8, 1868.....	75
Burt, Kate B.†.....	February 6, 1867.....	\$ 750
Burt, Kate M.*.....	Class of 1865.....	75
Burt, Margaret M.*.....	Class of 1864.....	425
Burt, Marion V.*.....	February 6, 1866.....	425
Burt, Mary H.*†.....	January 30, 1872.....	1,000
Bush, Arthine A.*.....	July 2, 1872.....	800
Butler, Mary L.*.....	February 1, 1870.....	1
Butts, Melissa M.*.....	July 2, 1872.....	400
Campbell, Anna*.....	Class of 1863.....	
Card, Florence*.....	Class of 1863.....	75
Card, George N.†.....	February 3, 1869.....	1,500
Card, Milton H.†.....	February 3, 1869.....	75
Carpenter, Mara E.*.....	July 6, 1869.....	700
Carpenter, Marion N.*.....	July 10, 1867.....	500
Carpenter, Rosamond H.*.....	February 3, 1869.....	1
Carpenter, Sarah*.....	Class of 1863.....	1
Carrier, Mary E.†.....	January 30, 1871.....	375
Carter N. Jane*.....	Class of 1863.....	75
Case, Pamela C.*.....	Class of 1862.....	1

^f Died March, 6, 1871.^g Died June 17, 1868.

Names.	Dates of Graduation.	Salaries.
Chalmers, Angeline *.....	Class of 1865	\$450
Chalmers, Julia A. *.....	February 6, 1867.....	600
Champion, Anna *.....	July 3, 1871.....	500
Chandler, Eliza A. *.....	Class of 1865	450
Chapin, Edward *.....	July 8, 1871	1,000
Charles, Libbie S. *.....	July 10, 1867	450
Chase, Olive A. *.....	July 3, 1871	600
Churchill, H. Jennie *.....	July 6, 1869	¶ §
Churchill, Octa G. *†.....	July 2, 1872	600
Clancey, Marie L. *.....	Class of 1864	600
Clapp, Eva H. *.....	February 5, 1868.....	400
Clapp, Leonora T. *.....	Class of 1862	¶ §
Clark, Charles D. *.....	Class of 1862	¶
Clarke, Fanny M. *.....	January 30, 1871 .....	|
Clark, Florence *.....	Class of 1863	¶ §
Clark, Hattie *.....	February 5, 1868.....	450
Clubbe, S. Anna *.....	July 2, 1872 .....	|
Coats, Phoebe *.....	Class of 1863.....	.....
Cole, Ella J. *.....	February 6, 1867	¶ §
Collins, Hannah J. *.....	July 25, 1866	800
Cook, Juliet A. *††.....	July 8, 1871	700
Coon, Emily *.....	February 1, 1871	375
Cooper, Arthur *†.....	July 8, 1871.....	|
Cooper, Fanny *.....	Class of 1863	¶ §
Cooper, Matilda S. *.....	Class of 1862	1,200
Copley, Euphemia D. *.....	Class of 1863	600
Crabb, Eugene M. †.....	July 1, 1870	600
Cragin, Lucy M. *.....	Class of 1863	700
Crawford, Charles H. ††.....	July 1, 1870	1,300
Crooks, Helen A. †.....	February 5, 1868	§ 700
Cross, Helen G. *.....	February 6, 1867	400
Crum, Ellen *.....	January 30, 1872	600
Crum, Taylor *†.....	July 2, 1872 .....	|
Curtice, Delia *.....	Class of 1865	700
Curtis, Hannah †.....	July 6, 1869	¶ §
Cusick, Mary *†.....	January 30, 1872	400
Cyrenius, Frances J. *.....	February 6, 1866.....	¶ §
Dalrymple, Harriet A. *.....	July 6, 1869	500
Darrow, Mary E. *.....	July 3, 1871	500
Davies, Adeline E. *.....	February 6, 1867.....	§ 550
Davis, Ada †.....	January 30, 1871.....	.....
Davis, Anna E. *.....	February 6, 1867.....	¶ §
Davis, Hattie E. †.....	January 30, 1871.....	.....
Davis, Helen A. *.....	Class of 1862	¶ §
Davis, Kate H. *.....	Class of 1862	650

Names.	Dates of Graduation.	Salaries.
Davis, Maria E.*	July 1, 1870	1
Davis, Mary E.*	Class of 1863	75
Davis, Mary, E.† h	July 1, 1870	\$1,000
Day, Delia M.*	February 8, 1869	500
De Lano, Teen J.* i	February 5, 1868	520
Dempsey, Kittie L.*	July 6, 1869	425
Denton, Sarah L.* j	July 6, 1869	1,200
Dewey, Lola M.* †	July 2, 1872	550
Dickerman, Emma*	July 8, 1871	1,500
Dikeman, Charlotte N.*	February 8, 1869	75
Dildine, Mary E.*	July 6, 1869	400
Dinmore, Lizzie*	Class of 1865	450
Dobbie, E. Talina*	February 5, 1868	75
Doris, Elizabeth L.*	July 8, 1868	550
Douglass, Henry M.† †	July 8, 1868	1,000
Dowse, Harriet F.†	July 1, 1870	500
Drew, Jeannette A.*	February 6, 1867	75
Dugane, Sarah D.*	Class of 1864	75
Dunning, George† k	February 5, 1868	.....
Edwards, Adeline S.*	July 2, 1872	500
Edwards, D. Sophia* †	July 2, 1872	450
Edwards, Eva S.* j	February 5, 1868	550
Edwards, Lindley M.†	July 6, 1869	1,200
Eggleston, Henrietta M.* †	July 8, 1871	480
Ells, Amelia A.*	February 6, 1867	75
Fairchild, Fanny M.*	July 8, 1868	450
Farnham, Le Roy D.* † †	July 2, 1872	1
Fenner, Emma J.*	July 10, 1867	400
Ferguson, Sarah M.* l	July 6, 1869	400
Fitzpatrick, Julia A.*	February 8, 1867	1
Forbush, J. Estelle*	July 8, 1871	360
Foster, Mary F.*	February 6, 1867	75
France, Aaron R.† :	February 1, 1870	500
Franks, Maria B.*	July 1, 1870	550
French, Armina†	February 6, 1867	75
Funnelle, Amanda P.*	Class of 1863	1,500
Funnelle, Lena S.* m	July 10, 1867	75
Furman, G. Monroe†	July 6, 1869	1,200
Furman, John W.†	January 30, 1871	1,000
Gage, L. Jennie*	February 5, 1868	550
Gage, Mary E.*	Class of 1865	75
Galloway, Eudora F.*	February 5, 1868	700
Gaylord, Margaret K.*	February 8, 1869	500

h * July 2, 1872.

i † July 6, 1869.

j † Feb. 3, 1869.

k Died Oct. 26, 1870.

l † July 2, 1871.

m † February 6, 1867.

Names.	Dates of Graduation.	Salaries.
Gibbs, Frances M. *	February 6, 1866	\$550
Gibbs, M. Elizabeth* <i>m</i>	July 10, 1867	475
Gilbert, Christina H. *	Class of 1863	700
Gilchrist, Augusta L. *	February 6, 1866	† §
Gill, Emily I. *	February 6, 1866	†
Gillespie, Letitia J. *	July 6, 1869	450
Gillespie, Mary A. *	July 2, 1872	†
Gray, Laura M. *	February 6, 1867	† §
Gray, May E. *	July 6, 1869	400
Green, Cassius M. †	July 6, 1869	†
Green, Ella H. *	July 2, 1872	†
Hall, Belle *	February 8, 1869	†
Hall, Defransa A. *	July 10, 1867	700
Hall, Mary F. * <i>n</i>	January 30, 1871	700
Hamilton, Anna E. *	Class of 1864	450
Hamilton, Mary L. *	Class of 1863	† §
Hammond, Marcia C. *	July 8, 1868	†
Hanen, Anna M. * <i>o</i>	February-6, 1866	.....
Hanen, Mary J. *	Class of 1862	†
Hanford, Marion N. *	Class of 1865	† §
Harkness, J. Warren †	February 8, 1869	†
Harmon, Mary J. *	Class of 1865	1,200
Haskell, Sarah M. *	February 6, 1866	† §
Hawkins, Hattie E. †	July 1, 1870	360
Hemenway, Jennie * †	July 8, 1871	600
Henry, Susan R. *	July 8, 1868	800
Herries, Isabella †	July 8, 1868	† §
Hicks, Elvenia I. †	February 5, 1868	† §
Hodgkins, E. Theodocia *	February 1, 1870	600
Holbrook, Mary M. †	February 6, 1867	† §
Hopkins, Amanda J. * <i>p</i>	July 1, 1870	700
Hopson, Edla E. *	July 25, 1866	† §
Houghton, Mary F. * †	July 2, 1872	600
Howard, Ellen E. †	January 30, 1871	†
Howard, James S. †	January 30, 1871	1,000
Hubbard, Amelia E. * <i>q</i>	Class of 1864	.....
Hubbard, Grace A. *	July 2, 1872	†
Hubbard, Maria H. * <i>r</i>	July 10, 1867	†
Hubbard, Zilpha S. *	July 6, 1869	450
Hughes, Emily L. *	July 10, 1867	† §
Hughes, Jennie E. †	February 5, 1868	700
Hunt, Emma S. *	February 8, 1869	425

m † February 6, 1867.*n* † July 6, 1869.*o* Died November 8, 1867.*p* † February 1, 1870.*q* Died June 1, 1871.*r* † February 6, 1867.

Names.	Dates of Graduation.	Salaries.
Hunt, Mary W. *	July 8, 1871.....	\$600
Hyland, Eliza J. *	Class of 1864.....	† §
Ingraham, Lucretia F. * ..	January 30, 1872.....	800
Jackson, Margaret * †.....	January 30, 1872.	525
Jayne, S. Augusta *	January 30, 1872.....	600
Jenkins, Helen M. *.....	Class of 1862.....	† §
Jennie, Amelia H. *.....	February 6, 1867.....	† §
Johnson, Nancy P. *.....	July 6, 1869.....	|
Jones, Eleanor E. *	February 3, 1869	700
Jones, Ellen L. *.....	July 8, 1871.....	900
Jones, Lewis H. * s.....	February 5, 1868	1,500
Jones, Miriam P. *	February 5, 1868.	† §
Jones, Rebecca *.....	February 6, 1867	1,200
Joslin, Sylvia P. *	July 6, 1869	650
Keeler, Esther J. *.....	July 6, 1869	† §
Kellogg, Corralinn A. * †.....	February 1, 1870	475
Kendall, Harriet D. * †	July 6, 1869.....	.....
Kenific, Maggie *.....	February 6, 1866	450
Kerr, Kittle *.....	Class of 1865.	§ 375
Ketchum, Angeline H. *.....	July 10, 1867.....	525
Keyes, Sarah L. †.....	February 6, 1867	700
Kilbourne, Mary A. *.....	Class of 1862	† §
Kimber, Fanny C. *.....	February 1, 1870.....	500
King, Jennette C. *.....	July 10, 1867.....	550
Kingsford, Elizabeth *	July 1, 1870.....	400
Kriekade, Mary A. *	January 30, 1871.....	800
Lapping, Martha A. *.....	Class of 1865.....	† §
Lathrop, Delia A. *.....	February 5, 1868	2,000
Lawrence, Maria E. *	February 5, 1868	† §
Lawrence, Mary L. †	July 6, 1869.....	600
Leach, Sarah H. *.....	February 5, 1868.....	† §
Leary, Jennie K. *	Class of 1865	500
Lee, Mary T. *.....	Class of 1863.....	1,500
Lee, Nellie. *.....	Class of 1865.....	†
Lecte, Harriet R. *.....	January 30, 1871.....	400
Leffin, Lizzie. * u.....	Class of 1865.....	§
Leonard, Mary A. *	July 10, 1867.....	425
Lester, Ordella A. *	July 3, 1871.....	500
Lewis, Mary E. *.....	July 3, 1871.....	400
Lewis, Matilda *.....	Class of 1862.....	† §
Lines, Anna M. *.....	Class of 1863.....	500
Locke, Abbie E. *.....	February 6, 1867.....	800
Locke, Helen E. *.....	July 2, 1872.....	450

* † July 1, 1870.

† Died October 31, 1870.

u Died December 7, 1870.

Names.	Dates of Graduation.	Salaries.
Loughridge, Sarah F.*	January 30, 1871	\$900
Lynch, Helen*	July 2, 1872	|
Macken, Chauncey B.†	February 5, 1868	|
Manning, Della.*	Class of 1862	525
Marsden, Frances M.*	July 6, 1869	450
Martin, Fanny E.*	February 5, 1868	700
Matheson, Frances L.*	July 2, 1872	400
Maxwell, Fanny C.*	July 25, 1866	600
Maybee, Sarah H.*	January 30, 1871	550
McAuley, Margaret L.*	July 1, 1870	450
McBride, Mary E.*†	July 3, 1871	800
McBride, Ruth.†	July 6, 1869	700
McCool, Celia E.*	July 25, 1866	600
McCumber, Martha C.*	February 6, 1867	900
McDowell, Nora*	Class of 1865	† §
McElroy, Alice E.* ^w	February 6, 1867	500
McFarlane, Jennette*	February 5, 1868	† §
McGonegal, Mary A.*	Class of 1863	1,200
McLean, Ida E.*	July 1, 1870	|
McLeish, Anna*†	July 3, 1871	700
McLellan, John W.*†	July 2, 1872	|
Mead, Emma A.*	February 6, 1868	|
Mergler, Mary J.*††	July 2, 1872	800
Merriam, Emily M.* ^z	July 10, 1867	† §
Merriam, Eunice J.*	July 6, 1869	† §
Merritt, Ellen J.*†	July 6, 1869	|
Miller, Adaline B.†	July 6, 1869	475
Miller, Catharine L.† ^y	July 6, 1869	
Miller, C. Lucretia*†	January 30, 1872	1,000
Miller, Martha.*	Class of 1862	† §
Miller, Sarah H.*	July 2, 1872	500
Moody, Jennette L.†	July 1, 1870	328
Moore, Adelaide G.*	July 2, 1872	|
Morey, Amelia*	July 6, 1869	700
Morey, Charles R.†	July 1, 1870	750
Morey, Helen*	July 1, 1870	425
Morgan, Abbie B.*	July 25, 1866	800
Morris, Frances M.*	July 3, 1871	462
Morris, Harriet N.*	July 10, 1867	|
Morris, Sarah M.*	July 3, 1871	420
Morrison, Emma S.*	February 6, 1867	† §
Morrow, Alcinda L.*	July 8, 1868	1,000
Morton, Lizzie H.*	July 10, 1867	450

*† July 1, 1870.

^w July 10, 1867.

*† February 6, 1867.

^y Died October 3, 1872.

Names.	Dates of Graduation.	Salaries.
Mott, Elzina E.*	July 6, 1869	\$550
Moul, Sophia L.*	July 2, 1872	|
Mulliner, Mary L.*	February 6, 1869	|
Munson, Henrietta E.* z	July 1, 1870	800
Murray, Esther A.*	February 1, 1870	400
Nelon, Bridget M.*	July 1, 1870	450
Newby, Nathan †	July 6, 1869	1,500
Nichols, Eliza J.*	Class of 1863	525
Noble, Ida R. †	July 1, 1870	800
Norman, Louisa *	Class of 1862	700
North, Olive *	July 6, 1869	400
Ormiston, Julia E.* †	July 2, 1872	300
Osborne, S. Katharine *	July 10, 1867	1,000
Paddock, Armada G. *	Class of 1863	1,200
Palmer, Althea A.* †	July 3, 1871	500
Parks, Minnie *	July 6, 1869	550
Parsels, Isabella * †	January 30, 1872	800
Parsons, Alice M. *	February 6, 1867	550
Parsons, Elizabeth * 1.	Class of 1862	.....
Parsons, Emma S.* 2	February 5, 1868	500
Parsons, Flora T.*	Class of 1862	1,200
Parsons, Jennie A.*	February 5, 1868	† \$
Parsons, Laura S.*	Class of 1862	700
Parsons, Mary A.*	Class of 1862	† \$
Payne, Augusta F.* †	July 2, 1872	600
Payne, Emeretta F.*	January 30, 1871	500
Peacock, Anna E.*	July 10, 1867	500
Pease, Fanny W.*	Class of 1862	.....
Penfield, Philomela *	Class of 1865	† \$
Perkins, Anna H.*	July 8, 1868	450
Perkins, Emily H.*	Class of 1865	† \$
Perkins, Mary E.*	Class of 1865	† \$
Perry, Sarah L.*	February 1, 1870	800
Phair, Mary A.*	July 2, 1872	|
Phillips, Emily E.*	July 6, 1869	600
Pierce, Ruth A.*	February 3, 1869	† \$
Piersall, Josephine M.* †	July 2, 1872	|
Pike, Anna L.*	February 6, 1866	† \$
Pitman, Mary R.*	February 5, 1868	† \$
Plumb, Louisa C. *	Class of 1862	† \$
Pond, Olive A.*	February 3, 1867	† \$
Porter, Lucretia *	July 25, 1866	500
Potter, Harriet A.*	February 6, 1867	650

z † February 1, 1870.

1 Died April 21, 1872.

2 † July 10, 1867.

Names.	Dates of Graduation.	Salaries.
Poucher, Florence M. †	July 6, 1869	₹ §
Powers, Louisa A. *	Class of 1864	\$500
Pride, Martha A. *	February 6, 1866	₹ §
Pyne, Sarah J. *	July 1, 1870	600
Quackenbush, A. Cordelia *	Class of 1864	₹ §
Ranger, Sarah A. *	Class of 1865	400
Ransom, George B. †	July 6, 1869	1
Reynolds, Ellen †	July 6, 1869	550
Reynolds, Myra M. *	January 30, 1872	450
Rice, Anna A. * †	January 30, 1872	360
Rice, Belle O. * 3.	July 1, 1870	600
Rice, Emily J. *	January 30, 1872	1
Rice, Sarah E. *	July 1, 1870	400
Richards, Charles W. †	July 6, 1869	1,000
Rider, Lucy †	February 1, 1870	750
Riggs, Mary E. * 4, 5	July 8, 1868	.....
Riggs, Matthew B. † 6	July 6, 1869	.....
Riley, Mary A. *	January 30, 1871	800
Robb, Jeannette A. *	February 3, 1869	₹ §
Robbins, Delia *	February 6, 1866	450
Roberts, Amy J. * †	January 30, 1872	750
Robertson, Elizabeth *	Class of 1865	850
Rollinson, Elizabeth G. *	July 2, 1872	500
Romans, Mary A. *	July 8, 1868	500
Root, Emma L. *	February 6, 1867	₹ §
Root, Martha J. *	July 8, 1868	₹ §
Rope, Kate E. *	July 10, 1867	1
Rosa, Minnie A. *	July 8, 1868	475
Rowe, Martha *	Class of 1862	800
Rowlee, Burdett D. †	July 3, 1871	800
Royce, Millicent A. * †	July 2, 1872	450
Safford, Louise M. *	February 6, 1867	₹ §
Salmon, Lizzie * 7	July 1, 1870	375
Salmon, Mary J. *	February 6, 1866	500
Sanford, Emily S. *	February 1, 1870	650
Sawyer, Laura A. †	July 8, 1868	₹ §
Sayre, Harmie J. *	July 10, 1867	₹ §
Scott, Mary E. *	Class of 1865	400
Scott, Tillie A. *	Class of 1864	450
Seaver, Ellen M. * 8	Class of 1863	.....
Seeber, Martha A. * †	Class of 1862	750
Sexton, Ellen †	July 1, 1870	475

3 † February 1, 1870.

5 Died July 23, 1871.

7 † Feb. 1, 1870.

4 † February 5, 1868.

6 Died September 26, 1870.

8 Died August 29, 1869.

Names.	Dates of Graduation.	Salaries.
Sheak, Elizabeth*	January 30, 1872	|
Sheldon, Edward A.*	Class of 1862	\$2,500
Sheldon, Mary D. †9.	July 8, 1868.	|
Sheldon, Phinie C.*	February 8, 1869	400
Sherman, Auronett M.*	July 8, 1871.	550
Sherman, Josephine I.†	July 1, 1870.	|
Sherwood, Henry W.† 10.	July 1, 1870.	1,500
Shippey, Seville B.†	July 1, 1870.	700
Sikes, Almira E.*	January 30, 1872	|
Sikes, Viletta G.*	July 2, 1872.	|
Simmons, M. Elizabeth*	July 8, 1871.	900
Sisson, Emma D.*	July 2, 1872.	450
Sisson, Eugene P.†	July 8, 1868.	1,200
Skinner, E. Avaline†	July 1, 1870.	475
Slater, Louisa*	Class of 1868.	375
Smith, Cora A.* †	July 2, 1872.	400
Smith, Cynthia R.*	January 30, 1871	420
Smith, Hannah M.†	July 1, 1870.	750
Smith, Helen M.*	July 6, 1869.	|
Smith, Ida B.*	July 25, 1866.	† \$
Smith, Lena M.*	July 2, 1872.	400
Smith, Mary E.*	February 6, 1867	475
Smith, Mary H.*	Class of 1868.	|
Smith, Rhoda R.*	Class of 1865.	† \$
Smith, William A.† 11.	July 1, 1870.	|
Southwell, Alfaretta* †	January 30, 1872	425
Sowles, Mehetable†	February 1, 1870	400
Spencer, Jane S. † †.	January 30, 1871	500
Sprott, Mary*	February 1, 1870.	600
Staats, Margaret J.*	Class of 1864.	525
Staats, Maria A.*	July 8, 1871.	500
Staats, Matilda C.* 12	February 6, 1867	700
Starr, Ellen D.*	February 6, 1866	|
Steber, Emma A.* †.	January 30, 1872	450
Sterling, Sarah C.*	Class of 1865	500
Stevens, Harriet E.* †.	July 2, 1872.	375
Stevenson, Agnes A. †.	July 8, 1868.	† \$
Stevenson, Rosanna *	Class of 1864.	† \$
Stewart, Mary C.* 13	July 6, 1869.	550
Stickney, Jennie H.*	Class of 1863.	1,500
Stimets, Charles C.* † †.	July 2, 1872.	1,200
Stocking, Ellen *	February 1, 1870	450
Stockwell, Frances C.*	July 2, 1872.	|

9 † February 2, 1869. 10 † February 1, 1870. 11 † July 2, 1871. 12 † July 10, 1867.

Names.	Dates of Graduation.	Salaries.
Stoddard, M. Louise *	January 30, 1873	\$500
Stoel, Martha W. *	Class of 1865	600
Stowell, Alice *	Class of 1865	\$ 450
Strong, Anna H. *	February 3, 1869	400
Sumner, Harriet B. *	July 10, 1867	¶ §
Sutton, Lucia *	July 1, 1870	¶ §
Sutton, Sarah M. †	July 1, 1870	700
Swan, Mary H.* 12	February 6, 1867	¶ §
Swanger, Emma L. †	July 8, 1868	¶ §
Swanger, Maria M.* 13	February 3, 1869	1,200
Taylor, Helen M. †	February 8, 1868	400
Taylor, Sarah *	Class of 1865	.....
Terry, N. Wesley †	July 1, 1870	|
Terry, Sarah E. *	July 3, 1871	400
Thurman, Gertrude * 14	February 6, 1866	.....
Tiffany, De Witt C. *	July 25, 1866	600
Tiffany, Helen A. *	January 30, 1871	500
Tiffany, Jane R. * †	July 3, 1871	500
Titus, Mary J. †	February 1, 1870	1,200
Town, Margaret A. *	Class of 1865	400
Tozer, Mary J. * †	January 30, 1871	700
Trask, Adelle * †	January 30, 1872	600
Trowbridge, Edward A. †	February 6, 1867	1,500
Trowbridge, Mary L. *	July 6, 1869	800
Tubbs, Helen M. *	Class of 1862	425
Tubbs, Rhoda A. *	February 3, 1869	500
Tuttle, Helen A. *	February 6, 1867	500
Tyler, Anna M. * 15	Class of 1865	.....
Vanderbelt, Delia M. *	January 30, 1871	400
Van Husen, Nancy L. *	July 8, 1868	1,000
Van Wagenen, Charlotte E. *	July 8, 1868	¶ §
Vaughn, Sena C. *..	July 25, 1866	550
Wait, Susan A. *	July 2, 1872	600
Waitt, Mary G. *	February 1, 1870	650
Wales, Lucretia H. *	February 5, 1868	600
Wallace, M. Louise *	February 1, 1870	600
Watson, Jane S. *	July 10, 1867	675
Waughop, Maryette C. †	February 1, 1870	|
Weed, Eliza H. *	Class of 1862	600
Weed, Frances E. *	Class of 1862	525
Weiler, Eugene D. *	Class of 1862	¶
Werner, Julia A. *	July 8, 1868	600
Wheeler, Sophronia M. * ..	July 8, 1868	¶ §

12 † July 10, 1867. 13 † July 8, 1868. 14 Died January 22, 1867. 15 Died August 11, 1870.

Names.	Dates of Graduation.	Salaries.
White, Franc E.*	February 8, 1869	¥ \$
Whitney, Emma H.*	Class of 1862	¥ \$
Whitney, Kate A.*	February 6, 1866	\$500
Whitney, Rose*	July 6, 1869	700
Williams, Florinda E.*	July 8, 1871	800
Williams, Helen M. †	July 6, 1869	700
Williams, M. Alice* † †	July 2, 1872	1
Williams, Mary *	Class of 1863	¥ \$
Williams, Rose B.*	January 30, 1872	425
Williams, S. Ida * †	January 30, 1872	400
Wilson, Helen M.*	Class of 1862	¥ \$
Wilson, Julia A.*	February 8, 1869	400
Wilsie, Ellen * 16	February 8, 1869	800
Woolworth, Clara N.*	February 1, 1870	500
Worthington, Eleanor * † †	January 30, 1872	1,000
Yocum, Jane P.*	Class of 1865	1
Young, Melinda *	July 1, 1870	.....

Total number of graduates since the school was established:

Ladies	440
Gentlemen	43
Total	483

SPECIAL ANNOUNCEMENT IN CIRCULAR OF FEBRUARY 1, 1872.

Library and Apparatus.

Aside from a respectable library of text, miscellaneous and reference books, the students have access to very large and choice public libraries, containing thousands of volumes of valuable books. Large additions have been made to the chemical and philosophical apparatus. In short, the school is provided with every needed facility for illustration and instruction.

Model and Practicing Schools.

The practicing schools include about 400 pupils, and embrace the primary and junior grades.

The model schools are designed to exhibit the highest order of excellence in teaching, while the practicing schools afford an opportunity for the normal pupils to manifest their natural

aptitude to teach, and to put into practice the principles and methods they have learned both from observation and instruction.

Boarding.

All the ladies of the school, not residing in Oswego, will be required to board in the boarding-house provided for their accommodation, unless excused by the proper committee. Here they will be under the immediate care of the teachers of the school, who board in the building. The house is pleasantly located in the central part of the town, but a short distance from the school, and is capable of accommodating from one hundred to one hundred and twenty-five pupils. Effort will be made to make this a pleasant home, and, as far as is consistent with this idea, to lessen the cost of living to the pupils.

The terms for room and board are as follows :

1. There will be a charge of from seventy-five cents to one dollar per week for rent of room, and thirty-five cents for fuel to each pupil, to be paid in advance, at the time of entrance, for the whole term. All the rooms are carpeted, and otherwise provided with the necessary articles of furniture.

No deduction will be made for absence during the first two weeks of the term, nor for absence from any cause, after the time of entering, for a period of less than five weeks.

These terms are on the supposition that not less than two occupy the same room, and furnish their own sheets, blankets, comfortables, pillows, pillow-cases, napkins and towels.

Any who prefer to room alone can do so by paying one-half the regular rent additional, and by occupying the back rooms on the fourth floor; and where all the bedding and other articles enumerated, except napkins, are furnished by the house, there will be an additional charge of twenty-five cents per week.

2. The other expenses of living (board, light, breakage and wear and tear of kitchen and dining-room furniture), except washing, will be divided *pro rata* among the boarders, each one paying a proportionate share. For the past term they have been two dollars and seventy-five cents per week, to each pupil. This will be required monthly in advance. Thus each pupil will have to pay eleven dollars at the beginning of the term, and at the commencement of every four weeks thereafter, for board. This is in addition to the rent and fuel provided for above. If it is found at the end of any month that the cost has been less than eleven dollars, the balance in favor of the pupil will be refunded; and if it is found that the cost has exceeded that amount, then the pupil will be expected to pay the excess.

To the regular boarders of the house there will be a charge of forty cents per dozen for washing. To those boarding themselves, or rooming out of the house, fifty cents will be charged. All articles should be distinctly marked with the name of the owner.

No deduction will be made for board in cases of absence less than one week, either at the beginning or at any time before the close of the term, nor for absence during the holiday week, as a large portion of the expenses must be kept up, the same as during other portions of the term.

In accordance with the terms above stated, the cost of living will be, for a term of twenty weeks, to those who provide themselves with the articles enumerated, and where the rent is seventy-five cents per week, seventy-seven dollars; where the rent is one dollar, and other conditions the same, eighty-two dollars; where everything is furnished by the house, five dollars must be added to each of the above amounts. This makes the highest cost to the pupil, when the most desirable rooms are rented, and everything is furnished, four dollars and thirty-five cents per week; and the lowest price, where the pupils furnish themselves, three dollars and eighty-five cents. This estimate does not include washing.

8. To those who desire to board themselves, rooms will be rented in an adjoining building, connected with the boarding-house by a covered passage, where every convenience will be afforded for this purpose. The charge for furnished rooms will be one dollar per week, if the pupils provide their own light bedding, as is required in case of boarders, and fuel. When the light bedding is provided, twenty-five cents more will be added, making the entire cost, where everything is furnished, one dollar and twenty-five cents per week. Pupils may, in this way, reduce the expense of living to two dollars or two and one-half dollars per week. Those who desire to have their washing done in the boarding-house laundry will be charged fifty cents per dozen.

A few gentlemen may be accommodated as table boarders in the boarding-hall, but none will be allowed to room in the building. The charge is three dollars per week.

Board may be procured in private families for four and a half dollars per week, including light and fuel.

On arriving at Oswego, students may leave their baggage at the railroad depot, retaining their checks, and report themselves at the boarding-hall, on the corner of West Second and Cayuga streets.

The courses of study and other important information will be found in general circular (Document Q).

(P.)

FOURTH ANNUAL REPORT OF THE LOCAL
BOARD OF THE STATE NORMAL AND TRAIN-
ING SCHOOL AT POTSDAM.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The local board of the State Normal and Training School at Potsdam, New York, in accordance with the provision of section three, chapter 466, Laws of 1866, respectfully submit their fourth annual report to the Legislature.

ATTENDANCE.

Whole number of pupils registered in each of the departments, respectively, during the year ending October 1, 1872:

Normal.....	363
Academic.....	203
Intermediate.....	136
Primary.....	146
Total.....	<u>848</u>

Average number of pupils in attendance for each of the departments, respectively, during the year ending July 2, 1872:

Normal.....	180.20
Academic.....	87.14
Intermediate.....	116.50
Primary.....	113.37
Total.....	<u>497.21</u>

FACULTY.

Malcolm McVicar, Principal, and Professor of Mental and Moral Philosophy and Didactics. Salary, \$2,500.

George H. Sweet, Vice-Principal, and Professor of English Literature and Ancient Languages. Salary, \$1,500.

Henry L. Harter, Professor of Mathematics. Salary, \$1,400.

E. D. Blakeslee, Professor of Natural Sciences. Salary, \$1,400.

Miranda S. Marks, Preceptress, and Teacher of Rhetoric and History. Salary, \$1,000.

Ellen J. Merritt, Teacher of Methods. Salary, \$700.

Lucy A. Leonard, Teacher of Composition. Salary, \$700.

Emma L. Qua, Teacher of English Grammar. Salary, \$700.

Amelia Morey, Principal of Intermediate Department. Salary, \$900.

Eleanor E. Jones, Principal of Primary Department. Salary, \$800.

Olive A. Chase, Critic in Intermediate Department. Salary, \$500.

Frances A. Parmeter, Critic in Primary Department. Salary, \$500.

CHANGES IN THE FACULTY.

George H. Sweet resigned his position as Vice-Principal and Professor of English Literature and Ancient Languages August 12th, 1872, and Henry L. Harter, Professor of Mathematics, was appointed to fill his place as Professor of Ancient Languages, and E. D. Blakeslee was appointed to fill his place as Vice-Principal.

Warren Mann was appointed Professor of Mathematics, to fill the place left vacant by the transfer of Henry L. Harter to the department of Ancient Languages.

Miss Emma L. Qua, teacher of English Grammar, resigned her position July 2, 1872, and Miss Juliet A. Cook was appointed to fill her place.

Miss Olive A. Chase, Critic in Intermediate Department, resigned her position August 19th, 1872, and Miss Helen D. Austin was appointed to fill her place.

Miss Ellen J. Merritt, on account of poor health, was compelled to suspend her work during the fall term. Miss Mary

F. Hall supplied her place for the remainder of the year, and has since been appointed to the position of Teacher of Methods.

FINANCIAL STATEMENT FOR THE YEAR ENDING SEPTEMBER 30,
1872.

Receipts.

Amount in hands of local board, Oct. 1, 1871..	\$693 52
Received from the State during the year.....	20,961 41
Received for tuition in the academic department,	2,139 60
Amount due to the local board, Oct. 1, 1872....	196 32
Total.....	<u>\$23,990 85</u>

Disbursements.

Contingent expenses of the school.....	\$3,517 91
Miscellaneous bills	6,031 44
Teachers' and janitor's salaries.....	14,441 50
Total.....	<u>\$23,990 85</u>

DETAILED STATEMENT *of receipts and expenditures of the local board of the State Normal and Training School at Potsdam, for the year ending September 30, 1872:*

RECEIPTS.

Amount in hands of local board, October 1, 1871.....	\$693 52
Received from the State, on account of regular appropriation for the school	17,961 41
Received from the State, on account of special appropriation made by the Legislature in the Supply Bill of 1871.....	3,000 00
Received from tuition in the academic department.....	2,139 60
Amount due to the local board, October 1, 1872.....	196 32
Total	<u>\$23,990 85</u>

DISBURSEMENTS.

Contingent expenses for the quarter ending July 4, 1871, as per vouchers filed with the Department of Public Instruction.

Voucher No. 1, O. E. Bonney, janitor	\$125 00
Voucher No. 2, Ira Ransom, work	8 25
Voucher No. 3, Emma L. Qua, rent of piano.....	12 50
Carried forward.....	<u>\$145 75</u>

Brought forward.....	\$145 75
Voucher No. 4, Ellen J. Merritt, rent of organ	8 00
Voucher No. 5, Henry L. Harter, rent of piano	8 00
Voucher No. 6, Geo. N. Benedict, tuning piano	4 00
Voucher No. 7, Seeley & Brown, school supplies	34 49
Voucher No. 8, Watkins, Leete & Co., goods, etc.	24 10
Voucher No. 9, Ezra R. Andrews, diplomas.....	9 40
Voucher No. 10, H. D. Thatcher & Co., goods.....	15 56
Voucher No. 11, Mont. Tel. Co. and Am. Ex., telegraphing, etc.,	5 30
Voucher No. 12, Elliot Fay, printing	27 50
Voucher No. 13, Students, necessary fare	54 05
Voucher No. 14, H. F. Lawrence, school supplies.....	26 06
Voucher No. 15, A. N. Deming, coal, etc.....	136 80
Voucher No. 16, Elliot Fay, postage.....	11 42
Voucher No. 17, Geo. B. Swan, lumber.....	27 59
Voucher No. 18, Eastman & Johnston, labor and materials...	46 44
Voucher No. 19, O. G. Howe, ribbon for diplomas.....	6 60
Voucher No. 20, R. & S. D. Bridge, delivering baggage.....	3 30
	<hr/>
	\$594 86 <hr/>

Contingent expenses for the quarter ending November 14, 1871, as per vouchers filed with the Department of Public Instruction.

Voucher No. 1, O. E. Bonney, janitor.....	\$125 00
Voucher No. 2, O. E. Bonney, cleaning and oil	64 18
Voucher No. 3, Ellen J. Merritt, rent of organ	8 00
Voucher No. 4, Emma L. Qua, rent of piano	12 50
Voucher No. 5, Elliot Fay, printing	28 10
Voucher No. 6, Elliot Fay, postage.....	10 00
Voucher No. 7, Baldwin & Co., coal.....	1,327 50
Voucher No. 8, G. B. Manley, wood	59 83
Voucher No. 9, H. F. Lawrence, ink and paper	32 30
Voucher No. 10, Seeley & Brown, books and supplies.....	88 60
Voucher No. 11, Duff & Foster, sheep pelts.....	8 25
Voucher No. 12, R. & S. D. Bridge, delivering baggage	5 70
Voucher No. 13, H. D. Thatcher & Co., goods.....	47 62
Voucher No. 14, Geo. B. Swan, blockwood, etc.....	12 19
Voucher No. 15, Watkins, Leete & Co., goods.....	25 07
Voucher No. 16, M. McVicar, cash paid	22 50
Voucher No. 17, P. D. Gorrie, goods.....	4 25
Voucher No. 18, N. E. Gary, carting	1 60
Voucher No. 19, Mont. Tel. Co., telegraphing and express....	8 73
Voucher No. 20, Ira Ransom, work.....	1 25
	<hr/>
	\$1,843 16 <hr/>

Contingent expenses for the quarter ending January 30, 1872, as per vouchers filed with the Department of Public Instruction.

Voucher No. 1, O. E. Bonney, janitor	\$125 00
Voucher No. 2, Ellen J. Merritt, rent of organ	8 00
Voucher No. 3, Emma L. Qua, rent of piano	12 50
Voucher No. 4, Ezra R. Andrews, diplomas	18 50
Voucher No. 5, H. F. Lawrence, paper and envelopes	27 60
Voucher No. 6, George N. Benedict, tuning pianos	12 00
Voucher No. 7, A. S. Barnes & Co., books	7 50
Voucher No. 8, Cox & Herrick, ribbon	3 88
Voucher No. 9, Myron S. Stratton, cash paid	1 50
Voucher No. 10, N. E. Gary, freight and cartage	2 44
Voucher No. 11, Eastman & Johnston, goods and labor	15 90
Voucher No. 12, Henderson & Abbott, work and fixtures	5 00
Voucher No. 13, W. E. Badlam, tuning piano	2 50
Voucher No. 14, A. N. Tupper, repairing locks	50
Voucher No. 15, R. & S. D. Bridge, delivering baggage	8 40
Voucher No. 16, Burnham, Watkins & Co., lumber and wood	28 48
Voucher No. 17, Watkins, Leete & Co., stove pipe and goods	91 28
Voucher No. 18, H. D. Thatcher & Co., crayons, etc.	68 45
Voucher No. 19, Elliot Fay, printing and postage	48 75
Voucher No. 20, George B. Swan, ash mouldings	1 44
Voucher No. 21, Ira J. Ransom, work	16 75
Voucher No. 22, Mont. Tel. Co. and American Express Co., telegraph and express	3 95
Voucher No. 23, Bachelder & Son, repairing chairs	4 75
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\$514 97	

Contingent expenses for the quarter ending April 23, 1872, as per vouchers filed with the Department of Public Instruction.

Voucher No. 1, O. E. Bonney, janitor	\$125 00
Voucher No. 2, Emma L. Qua, rent of piano	12 50
Voucher No. 3, William Jennings, wood	55 50
Voucher No. 4, George W. Bonney, oil	18 06
Voucher No. 5, A. S. Barnes & Co., books	6 75
Voucher No. 6, Harvey J. Welch, keys	1 80
Voucher No. 7, George N. Benedict, tuning pianos	9 50
Voucher No. 8, Thomas Charter, carting and freight	1 03
Voucher No. 9, George Parkhurst, frames	3 75
Voucher No. 10, Seeley & Brown, goods	12 70
Voucher No. 11, H. F. Lawrence, ink, paper, etc.	19 48
Voucher No. 12, Elliot Fay, printing and postage	18 00
Voucher No. 13, Cornelius Clark, sawing wood	19 84
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Carried forward	\$293 86

Brought forward.....	\$298 86
Voucher No. 14, O. E. Bonney, kindling wood, etc.....	2 10
Voucher No. 15, Mont. Tel. Co. and Am. Exp. Co., telegraph and express	2 80
Voucher No. 16, H. D. Thatcher & Co., chemicals, etc.....	66 20
Voucher No. 17, C. W. Leete, goods, etc....	44 85
Voucher No. 18, Baldwin & Co., coal	55 00
Voucher No. 19, R. & S. D. Bridge, delivering baggage	4 05
Voucher No. 20, Ira J. Ransom, work	20 50
Voucher No. 21, E. S. Ritchie & Son, Siren	50 00
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	\$538 86

*Contingent expenses for the quarter ending July 2, 1872, as per vouchers filed
with the Department of Public Instruction.*

Voucher No. 1, O. E. Bonney, janitor.....	\$195 00
Voucher No. 2, Emma L. Qua, rent of piano	12 50
Voucher No. 3, Baldwin & Co., coal.....	92 17
Voucher No. 4, E. R. Andrews, diplomas	6 00
Voucher No. 5, O. G. Howe, ribbon for diplomas.....	6 60
Voucher No. 6, James Train, wood.....	67 38
Voucher No. 7, O. E. Bonney, sawing and splitting wood...	19 12
Voucher No. 8, Seeley and Brown, goods.....	50
Voucher No. 9, A. N. Tupper, fitting keys	50
Voucher No. 10, Students' return fare	81 45
Voucher No. 11, Elliot Fay, printing and postage.....	33 50
Voucher No. 12, C. W. Leete, goods and work.....	9 14
Voucher No. 13, H. D. Thatcher & Co., goods.....	22 70
Voucher No. 14, George W. Swift, work, etc.....	42 00
Voucher No. 15, George N. Benedict, tuning pianos	8 00
	<hr/>
	\$526 56

Teachers' and Janitor's Salaries.

Malcolm McVicar, principal.....	\$2,500 00
George H. Sweet, services as teacher.....	1,500 00
Henry L. Harter, services as teacher	1,400 00
E. D. Blakelee, services as teacher	1,400 00
Miranda S. Marks, services as teacher.....	1,000 00
Mary F. Hall, services as teacher.....	687 00
Lucy A. Leonard, services as teacher.....	700 00
Emma L. Qua, services as teacher	700 00
Amelia Morey, services as teacher.....	900 00
Eleanor E. Jones, services as teacher.....	800 00
	<hr/>
Carried forward.....	\$11,587 00

Brought forward.....	\$11,537 00
Mary L. Wood, services as teacher.....	600 00
Amelia A. McFadden, services as teacher.....	600 00
Frances A. Parmeter, services as teacher.....	500 00
Olive A. Chase, services as teacher.....	500 00
Elizabeth Hargrave, services as teacher.....	52 50
Kittie M. Kimball, services as teacher.....	45 00
Ellen J. Merritt, services as teacher.....	72 00
Alvinza B. Collins, services as teacher.....	35 00
O. E. Bonney, services as teacher.....	500 00
	<hr/>
	\$14,441 50

Statement of expenditures for grading, improving and fencing grounds, pursuant to chapter 715, Laws of 1871.

Voucher No. 1, Watkins, Leete & Co., goods.....	\$569 24
Voucher No. 2, D. Parmeter, posts, flagging, etc.....	1,427 80
Voucher No. 3, Jesse Reynolds, labor, etc.....	1,002 96
	<hr/>
	\$3,000 00

Miscellaneous bills, as per bills with accompanying vouchers filed in the office of the secretary of the local board, paid from moneys received for tuition in the academic department during the year ending September 30, 1872.

Voucher No. 43, H. D. Thatcher & Co., goods.....	\$8 94
Voucher No. 44, Baldwin & Co., lime.....	5 00
Voucher No. 45, Geo. B. Swan, lumber.....	9 00
Voucher No. 46, Chas. Le Fevre, labor.....	22 50
Voucher No. 47, Henry Train, labor, etc.....	49 20
Voucher No. 48, Watkins, Leete & Co., labor and goods.....	6 88
Voucher No. 49, Watkins, Leete & Co., labor and material....	149 63
Voucher No. 50, Burnham, Watkins & Co., lumber..	17 50
Voucher No. 51, Eastman & Johnston, labor and goods.....	20 95
Voucher No. 52, N. E. Garey, carting.....	4 04
Voucher No. 53, O. E. Bonney, lumber.....	15 16
Voucher No. 54, W. S. Patten, labor.....	11 40
Voucher No. 55, Ira J. Ransom, work.....	42 98
Voucher No. 56, Ira J. Ransom, work.....	14 26
Voucher No. 57, Watkins, Leete & Co., error in former bill..	8 50
Voucher No. 58, Henry M. Train, labor.....	7 00
Voucher No. 59, Ira J. Ransom, constructing pipe.....	15 06
Voucher No. 60, Watkins, Leete & Co., stove-pipe.....	17 09
Voucher No. 61, Geo. B. Swan, horse hire.....	2 00
Voucher No. 62, Foster & Goggin, insurance.....	600 00
	<hr/>
Carried forward.....	\$1,022 08

Brought forward.....	\$1,022 08
Voucher No. 63, H. N. Redway, insurance	602 31
Voucher No. 64, Geo. W. Swift, plans and estimate.....	30 00
Voucher No. 65, Hall & Gardner, balance for coal	24 50
Voucher No. 66, Asher & Adams, N. Y. Atlas and Gaz.....	12 00
Voucher No. 67, M. McVicar, two sets apparatus	150 00
Voucher No. 68, M. McVicar, payment on house	605 00
Voucher No. 69, M. McVicar, payment on house.....	395 00
Voucher No. 70, Chas. C. Townsend, services	60 00
Voucher No. 71, Chas. C. Townsend, services	60 00
Voucher No. 72, Geo. H. Sweet, cash paid	60
Voucher No. 73, Mr. Gorrow, work	10 00
Voucher No. 74, Chas. C. Townsend, services	60 00
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	<u>\$3,081 44</u>

ST. LAWRENCE COUNTY, ss.:

Henry Watkins, president, and Charles O. Tappan, secretary, of the local board of the State Normal and Training School at Potsdam, being duly sworn, say, and each for himself says, that he has examined the foregoing account, and believes the same to be, in all respects, correct and just.

CHARLES O. TAPPAN.

HENRY WATKINS.

Sworn and subscribed before me this }
6th day of February, A. D. 1873. }

JOHN G. McINTYRE,

Notary Public.

THE WORKING OF THE SCHOOL.

The local board take this opportunity of expressing their satisfaction with the general working of the school during the current year, and with its results thus far. Since the organization of this normal school, in 1869, it has sent forth twenty-two graduates, nearly all of whom are teaching in the State of New York; one at a salary of one thousand dollars per year, one at a salary of seven hundred and seventy-five dollars, and others at salaries varying from six hundred to four hundred dollars. At the close of the spring term of 1873, we shall have graduated about twenty more. From the employers of

those already sent out, and from the principals of the schools in which they are engaged, we have received the most emphatic testimony to their practical efficiency in the school-room, and the general satisfaction with which their labors are received. It is our aim so to instruct and train those now in our hands that in due time they may advance to an equal success, and worthily perform their share in the work of education in the Empire State.

We think our courses of study are somewhat too heavy, though as yet there seems to be no available remedy. We teach nothing more than teachers, of the rank which normal school graduates are expected to hold, ought certainly to know; yet there is an inconvenience in teaching them so much in so short a time. A diploma is a license for life, conferring valuable privileges upon the possessor, and opening the doors to the more lucrative positions; and hence no diploma should be granted except for tested ability and solid acquirements.

It would be impossible to thoroughly prepare teachers for principalships and the higher departments of union schools, and the schools of the cities, if our course should contain less than it does. At present it would be impolitic to lengthen the time. Our highest classes are the smallest of all, and we believe this is the uniform experience of all institutions which have long courses. The addition of one year to the course would probably reduce by half the number of the graduates.

Teaching is not yet so firmly established among the professions, nor are its attractions so brilliant, as to induce many to spend more than four years in preparing to engage in it. It would greatly help us if we could raise the standard of admission; and nothing would be easier than this, if the quality of the instruction in the district schools were good enough. But so long as the teaching of the common schools of the country districts, from which we receive most of our students, is what it is, we shall have no sufficient foundation on which to build, if we raise the standard of admission. Even as it is, we have been compelled to have a preparatory

class. In this class, many possessing the capacity have received that fundamental instruction which enabled them to take high rank in succeeding classes. Some who had taught two or three terms in district schools have been obliged to enter this preparatory class, because they lacked that knowledge of the elementary principles of the common branches needed to pass the regular entrance examination. When teachers are so ignorant, what must their pupils be?

There seems to be no immediate remedy for this defect of the district schools. To elevate the character of these is a work requiring time and patience and money; the latter is the one thing needful. It is all in vain to hold educational conventions, and preach to teachers of the dignity and awful responsibility of their calling, if the wages of the audience average five dollars per week. It is hard to convince the young American man and the young American lady, that such vast responsibilities accompany such a slender income. They do not like to continue long in an occupation where the burdens and the bounties are so unequally yoked together. Hence, many content themselves with superficial preparation and slovenly work; and many more make haste to escape from the ranks in which the duties so heavily outweigh the emoluments.

One of the crying evils of our district schools is the frequent change of teachers. Only in exceptional instances, is the same teacher employed in a school for two successive terms. The training of a mind should be a closely connected and harmonious process. It should not, twice in every year, be rudely changed. What would be thought of any board of trustees or building commission which should, once in a month, change the architects of a great and important edifice, and attempt to carry out their different plans? Yet very similar is the action of many of the trustees of the district schools. Though the mental development of the children is not so absolutely in the teacher's power as is the structure of a building in the power of its architect, yet the various methods of teaching, pursued by different teachers, their divergent notions, and dissimilar

characters, abilities and attempts, must inevitably exert a hurtful influence upon the budding faculties of childhood.

The authority of the school commissioners avails but little for the correction of these evils. The people demand schools of some sort; and at prevailing wages, the supply of good teachers is not large. Some districts, also, with a sparse population, contain so little taxable property, that to maintain a good school would be a severe burden. But numerous other districts overflow with riches; the barns are filled with plenty, the taxable property is counted by tens of thousands of dollars; yet in these districts are seldom seen those excellent schools which this wealth ought to support. Several young men of this vicinity are now engaged in teaching common schools in southern Illinois. This ought not to be so. St. Lawrence county should not allow her competent teachers to be drawn to Illinois, nor to any other State, east or west, by higher wages. The youth of northern New York are every way worthy of as good instruction as the youth of southern Illinois. Patriotism ought to induce the people to keep their best talent in their own midst; and their local and family pride and interests should induce them to give the best instruction to their own sons and daughters. A judicious increase of teachers' wages throughout the State, would enable the commissioners to demand higher qualifications, and to insist upon better teaching.

Thus would the foundations of intelligent citizenship be laid with greater security and strengthened, and all the higher institutions of learning would rejoice in a policy which must ultimately enlarge the boundaries and multiply the triumphs of American scholarship.

THE DISCIPLINE OF THE SCHOOL.

The discipline of the school is administered in harmony with the following

Principles of Government,

which are printed in the general regulations, and placed in the hands of every student :

1. In seeking to develop a symmetrical character and the power of self-government in each pupil, the Golden Rule, "Do unto others as ye would that others should do unto you," is made the foundation of every requirement.

2. The relation of teacher and pupil involves a pledge on the part of both to regard the interests of each other as sacred, which pledge is assumed as given when the pupil enters the school.

3. From the very nature of the relation between teacher and pupil, the teacher is always considered the proper judge of what is to be viewed, under any given circumstances, as right or wrong, but before making any decision all the circumstances are fully canvassed.

4. The highest good of the individual pupil, so far as it is compatible with the highest good of the whole school, is made the starting and closing principle of all discipline.

5. No requirements are made of any pupil that are not, under similar conditions, made of every pupil in the school.

6. The spirit in which everything is done is considered more important, in its effects upon the pupil and the school, than the form.

7. Deportment is considered as a study, and is placed under the head of scholarship. Mental discipline alone is not the measure of success in practical life, nor is it the measure of the highest form of manhood and womanhood. The power acquired through the study of various subjects under the guidance of teachers, will be effective in after life, just to the extent in which strength of character and the power of self-control has been developed. In view of this fact, proper deportment is the crowning excellence of true scholarship, and should receive the first attention both of parents and teachers. The various regulations of the school are therefore not arbitrary rules, intended simply to secure order that the teachers may perform their work successfully, but they are a course of study and instruction designed to cultivate correct views of the relations of the governing to the governed, correct habits, and the power of self-government.

SPECIAL TRAINING CLASS.

Desiring to bring the advantages of the normal school to bear more directly upon the district schools, a consultation was held by a committee of the local board, several members of the faculty and the school commissioners of St. Lawrence county. At this meeting, which was held at the close of the spring term in July last, it was urged, that the graduates of the normal schools secured positions in union and graded schools, that the under-graduates who taught district schools had received no professional instruction, and, consequently, the common schools of this and neighboring counties were not

receiving as much benefit from the normal school located in their midst as the interests of popular education renders desirable. It cannot be expected that those who have spent three or four years in the normal school should afterward confine their teaching to the district schools or seek positions therein, while places much more desirable are offered to them in schools of higher grade. Yet the local board and faculty were desirous of doing whatever lay in their power to do, for the immediate good of the district schools. The result of the consultation was the adoption of a plan for the instruction of a special training class, during the first ten weeks of the fall term. Accordingly, the following circulars were prepared and sent to all the school commissioners of the State for distribution :

SPECIAL CIRCULAR.

The local board, at a meeting held July 6th, 1872, after a full discussion and consultation, decided, with the approval of the State Superintendent of Public Instruction, to organize a class in the normal school, at the opening of the next term (September 4th), for the purpose of giving special instruction for ten weeks to such persons as intend to teach in the public schools of the State, one or more terms during the school year commencing October 1st, 1872.

The instruction in the class will be confined to arithmetic, grammar, geography, reading, school economy, composition and penmanship. All, however, who are prepared to pursue higher subjects, without interfering with the work of the class, will be allowed to do so in the regular normal school classes. It is proposed, during the ten weeks, to make a rapid review of each subject, having special regard to practical methods of presentation for common schools.

COURSE OF INSTRUCTION.

Arithmetic.

The instruction in arithmetic will include a discussion of the best methods of presenting all the principal processes, including the five fundamental rules, both in whole numbers and fractions, greatest common divisor, least common multiple, percentage with its various applications to stocks, insurance, banking, exchange, etc., ratio and proportion, alligation, and extraction of square and cube root.

Grammar

The instruction in grammar will include a review of the subject, the elements of analysis, and a discussion of the best methods of giving elementary

instruction or first lessons, and the use that should be made of text-books in advanced work.

Geography.

The instruction in geography will include a discussion of the best methods of giving primary lessons, of topical recitation, of map drawing, of the use of maps and globes, and of a general plan for the presentation of the whole subject.

Reading.

The instruction in reading will include a drill in reading, and the discussion of the elements of reading and elocution, and the best methods of conducting class exercises in common schools.

School Economy.

The instruction in school economy will include the discussion of the best methods of organizing and governing common schools, including classification, examinations, the powers and rights of school commissioners, of trustees, of teachers, pupils and patrons, and the appliances which should be used in governing a school.

Composition and Penmanship.

The instruction in composition and penmanship will have special reference to work that should be done in common schools.

APPOINTMENTS.

To gain admission to the class, an appointment must be obtained from some school commissioner in the State. Commissioners will grant an appointment to any person who has been licensed to teach, and who intends to teach in the public schools of the State, one or more terms during the year. Appointments will also be granted to persons, who have not yet been licensed to teach, by giving satisfactory evidence to commissioners that they are qualified to enter the class, and that they intend to teach in the public schools during the year.

Before being admitted to the class, applicants must pass an examination in the elements of arithmetic, grammar and geography. The examination will take place September 4th.

SPECIAL PRIVILEGES.

Free instruction and the free use of text-books will be given, for ten weeks, to all who are admitted into the class. Ample opportunity will also be given to members of the class to witness the methods of instruction and management in the training school.

By making an application to the commissioner of your assembly district, he will inform you immediately if you can have an appointment.

SUPERINTENDENT OF PUBLIC INSTRUCTION. 241

For further information you can apply to Dr. M. McVicar, principal of the school.

HENRY WATKINS,

President of Local Board.

CHAS. O. TAPPAN,

Secretary of Local Board.

The commissioners distributed the circular to those of their acquaintance whom they thought likely to improve the opportunities offered, and sent also the following letter :

The accompanying circular, from the local board of the State Normal and Training School at Potsdam, will inform you in regard to a special training class for common-school teachers, which is to be commenced at the opening of the school in September.

You will see by the circular, that the instruction in this class will be such as will greatly benefit any who intend to teach in the common schools during the year.

Should you desire to attend the class, on the conditions named in the circular, you can inform me by return mail, and I will give you an appointment. The appointment will be sent to the principal of the school, and will be there on your arrival at Potsdam in September.

Please extend the information in regard to the class to all whom you know, who expect to teach during the year.

Yours respectfully,

.....

School Commissioner.

The following is the form of the appointment used by the commissioners :

This is to certify that.....has given to me satisfactory evidence of fitness for admission into the special training class in the State Normal and Training School at Potsdam, N. Y., and of.....intention to teach, one or more terms, in the public schools of the State, during the school year commencing October 1st, 1872.

I therefore appoint.....to the class, for the ten weeks commencing September 4th, and ending November 18th, 1872, subject to the examination for admission by the Faculty.

.....

School Commissioner, St. Lawrence County.

The result of these efforts was the organization of a class at the opening of the fall term, September 4, 1872, numbering

fifty-five pupils. The instruction given conformed as nearly as possible to the announcements of the circular, with the addition of gymnastics. The example was followed by the normal schools at Cortland, Geneseo, Fredonia, Oswego and Buffalo. Thus the plan is having a more extensive trial than this school alone could give it.

In our class, many difficulties were met. The pupils came with all degrees of qualification. Some were barely able to pass the moderate examination prescribed by the commissioners, and had never taught. Others could have passed much higher examinations, and had taught several terms. Some came just within the requirements with regard to age, and were not sufficiently mature to do the work which those of riper years were able and desired to accomplish. Their expectations and purposes were of great variety; some desired to thoroughly master the fundamental principles of teaching and school management; others desired advanced instruction in the various subjects which they had not completed to their satisfaction; some desired almost endless discussion on the controverted points of grammar, and easy solutions of knotty examples in arithmetic; others wanted to be taught how to teach, regardless of whether they possessed sufficient knowledge of subjects to make such instruction of any value.

Among these conflicting desires, and the diversities of ability, qualifications, purposes and expectations, the teachers endeavored to strike that golden mean which, in such a case, is the surest path to success. At the close of the ten weeks, examinations were held, at which two of the commissioners of St. Lawrence county were present. At the end of the second day's examinations they addressed the class, stating their eminent satisfaction with the work they had accomplished. The commissioners also expressed a strong expectation that the members of the class would testify by practical results in the school room that this special training had not been lost upon them. They promised to pay particular attention to their schools that they might the better judge of the success of our experiment. Nearly all of the fifty-five members of the class

are now engaged in teaching; and the reports which we have received concerning their schools are extremely gratifying.

The extra labor laid upon the faculty, in thus conducting seven daily recitations of so large a class, was a serious draft upon their resources; but if the result of their attempt to connect more closely with the common schools, should prove a help in the solution of the normal school question in this State, even those most heavily burdened will not regret the labor they expended.

PROGRAMME OF DAILY EXERCISES.

CLASSES.	8.45 to 9.		9 to 9.40.		9.40 to 10.25.		10.25 to 10.40.		10.40 to 11.30.	
	Opening exercises.		Room.	Subjects.	Room.	Subjects.	Room.	Subjects.	Room.	Subjects.
D. Elementary English, 1st division	18	Composition	16	Geography	16	Geography.	16	Geography.	16	Geography.
D. Elementary English, 2d division	20	Grammar	16	Grammar	16	Geography	16	Reading.	14	Reading.
C. Elementary English, 1st division	43	Physiology	18	Physiology	18	Composition and rhetoric.	43	Physiology.	43	Physiology.
C. Elementary English, 2d division	14	Reading	17	Reading	17	Methods in language	17	Philosophy of education.	17	Philosophy of education.
B. Elementary English	16	Methods in arithmetic	21	Reading	21	Teaching	15	Teaching.	15	Teaching.
A. Elementary English	21	Geometry	43	Geometry	43	Latin	15	Algebra.	15	Algebra.
D. Advanced English, and F. classical	16	Methods in arithmetic	9	History	9	Natural Philosophy	21	Latin.	21	Latin.
C. Advanced English, and E. classical	16	Teaching	17	Teaching	17	Methods in language	19	Greek.	19	Greek.
B. Advanced English	19	Latin	43	Natural Philosophy	43	Natural Philosophy	19	French.	19	French.
D. Classical	16	Methods in arithmetic	17	Methods in language	17	Teaching	17	Philosophy of education.	17	Philosophy of education.
C. Classical	16	Teaching	16	Teaching	16	Geography (one-half term).	16	Teaching.	16	Teaching.
A. Classical	15	Arithmetic	43	Physiology	43	Arithmetic	14	Geography (one-half term).	14	Geography (one-half term).
D. Academic	20	Grammar	20	Grammar	20	Grammar	14	Reading.	14	Reading.
C. Academic	20	Grammar	20	Grammar	20	Grammar	14	Reading.	14	Reading.
Sub-D. Academic	20	Grammar	20	Grammar	20	Grammar	14	Reading.	14	Reading.

PROGRAMME OF DAILY EXERCISES — (Continued).

CLASSES.	11.30 to 12.5.		1.30 to 2.		2 to 2.40.		2.40 to 3.35.		3.35 to 4.05.	
	Room.	Subjects.	Room.	Subjects.	Room.	Subjects.	Room.	Subjects.	Room.	Subjects.
D. Elementary English, 1st division.	15	Arithmetic.	16	Drawing	20	Grammar	19	Pennanship.		
D. Elementary English, 2d division.	13	Composition	15	Arithmetic.	15	Drawing	19	Pennanship.		
C. Elementary English, 1st division.	31	Arithmetic.	43	Grammar, Botany (1st half)	13	Composition	13	Music.		
C. Elementary English, 2d division.	43	Botany (1st half)	14	Arithmetic.	..	..	13	Music.		
B. Elementary English	20	Grammar	..	..	14	Methods in geog'y.	..	Gymnastics.		
A. Elementary English	29	Primary methods	..	Teaching	..	Teaching	..	..
D. Advanced English and F. Class	16	Book-keeping	16	Drawing	9	Rhetoric	..	..
C. Advanced English and E. Class	9	Literature	21	Algebra	21	Geometry	..	..
E. Advanced English	43	Astronomy	43	Geology (2d half)	14	Methods in geog'y.	..	..
A. Advanced English	29	Primary methods	..	Teaching	..	Teaching	..	..
D. Classical	43	Astronomy	..	..	..	..	..	..
C. Classical	19	Greek	..	..	..	..	..	..
B. Classical	14	German	..	Moral Philos., Geol. (2d half)	..	..	43	Chemistry.		
A. Classical	..	Teaching	19	Latin	14	Methods in geog'y.	9	French.		
D. Academic	20	Grammar	13	Composition	16	Drawing	19	Pennanship.		
C. Academic	..	..	43	Botany (1st half)	13	Composition	13	Music.		
Sub-D. Academic	17	Geography	..	..	15	Arithmetic	15	Comp'n & spell'g.		

GRADUATES.

FIRST CLASS—TERM ENDING FEBRUARY 7, 1871.

Amanda M. Martin.

Alice C. Stevens.

SECOND CLASS—TERM ENDING JUNE 29, 1871.

Hannah B. Barnes.

Amelia A. McFadden.

Joannas Haig.

Mattie C. Carpenter.

Frances A. Parmeter.

THIRD CLASS—TERM ENDING JANUARY 30, 1872.

Mrs. Joanna Anderson.

Harriet B. Stearns.

Matilda Osier.

Aldula Stone.

Seraphina I. Howard.

Celestia Blatchley.

Elizabeth Hargrave.

FOURTH CLASS—TERM ENDING JULY 2, 1872.

Anna M. Anderson.

Herbert C. Adams.

Francene Swift.

Martha I. Burt.

Alice M. Wood.

Emily M. Dayton.

Eliza J. Wall.

Hattie A. Fisher.

SPECIAL ANNOUNCEMENT IN CIRCULAR OF SEP-
TEMBER 1, 1872.

LOCAL BOARD.

Henry Watkins, A. M., *President*.

Aaron N. Deming.

Hon. Chas. O. Tappan, *Secretary*.

Eben Fisher, D. D.

Jesse Reynolds, M. D., *Treasurer*.

Roswell Pettibone, A. M.

Hon. Noble S. Elderkin.

John I. Gilbert, A. M.

Hon. A. X. Parker.

FACULTY.

M. McVicar, Ph. D., LL. D., Principal, and Professor of
Mental and Moral Philosophy and Didactics.E. D. Blakeslee, A. M., Vice-Principal, and Professor of
Natural Sciences.

Henry L. Harter, A. M., Professor of Ancient Languages.

Warren Mann, A. B., Professor of Mathematics.

Giles P. Hawley, A. B., Teacher of Elocution and Vocal Music.

Miranda S. Marks, Preceptress, and Teacher of Rhetoric, Literature and French.

Lucy A. Leonard, Teacher of Language and Composition.

Mary L. Wood, Teacher of Gymnastics, Reading and German.

Mary F. Hall, Teacher of Methods and Geography.

Amelia A. McFadden, Teacher of Mathematics.

Juliet A. Cook, Teacher of Grammar.

Amelia Morey, Principal of Intermediate Department, and Teacher of Methods.

Eleanor E. Jones, Principal of Primary Department, and Teacher of Methods.

Frances A. Parmeter, Critic in Primary Department.

Helen D. Austin, Critic in Intermediate Department.

ACADEMIC DEPARTMENT.

For those who purpose entering this department, the following information is given :

Application for admission should be made either in person or by letter to the principal of the school, and should be accompanied by a careful statement of the character, habits and present attainments of candidates. No idle, insubordinate or dissipated pupil will be tolerated.

Students will be received at any time, but in no case for less than a quarter, except by special arrangement; and no deduction in price of tuition will be made for those who enter within the first two, or leave within the last three weeks of the term, nor for absence during the term, except for sickness.

Classes out of the regular course cannot be organized for the accommodation of students entering this department.

Courses of Study.

First. The Advanced English Course. *Second.* The Classical Course. These are identical with the same courses in the

normal department, except that they embrace no professional training.

Cost of Tuition.

Pupils will be charged the following rate of tuition per quarter: English course, \$6.00; classical, \$7.00; diploma and graduation fee (extra), \$5.00.

GENERAL INFORMATION.

Location.

The village of Potsdam is situated in the town of Potsdam, St. Lawrence county, on the railroad between Watertown and Potsdam Junction. Pupils should reach Potsdam the day before the opening of the term, and go directly to the normal school building, where they will be advised in regard to boarding places. Baggage may be left at the depot until a boarding place is secured, when it will be delivered free of charge.

Boarding.

Board can be obtained in private families, including washing, at rates varying from \$3.50 to \$4.50 per week. The boarding hall in the normal school building is designed exclusively for ladies. The plan upon which it is conducted is explained in the following propositions:

1. Each room is carpeted and neatly furnished with everything necessary for the comfort of the student, and is occupied by only two ladies. The carpets and furniture in the entire boarding hall are new. The rooms are heated by good coal stoves. The coal is delivered at the doors of the students' rooms.
2. A servant, who does all the heavy work pertaining to the dining-room, kitchen and study-rooms, is provided for every twenty-five boarders.
3. Each young lady is expected to work one hour per day. The work done by the boarders and servants is under the immediate supervision of a matron, who has the general oversight of the whole boarding-house. The work done by boarders is arranged so as not to interfere with recitations or study hours.
4. The quality of the board is fixed by the boarders, subject to the approval of the matron.

5. Each boarder is charged one dollar per week room rent, to defray the expense of furnishing study-rooms, dining-room and kitchen, and pay the wages of matron and servant.

6. Board, fuel, light and washing are furnished at cost, the whole expense of which has averaged \$2.10 per week during the past year.

7. Thirty-five dollars are payable quarterly in advance, ten dollars of which are applied to the room rent, and the remaining twenty-five dollars are deposited in the bank, to meet the current expenses of the boarding hall for the quarter. Should the entire expense be less than three and a half dollars per week, the surplus, which has been paid in advance and deposited in the bank, is refunded to each student at the end of the term.

8. Each boarder in the boarding hall furnishes her own fork, teaspoon, towels, napkins, two sheets, two pillow-cases and two comforters, each of which, as well as every article of clothing, should be distinctly marked with the owner's name.

9. The plan and workings of the boarding hall have given entire satisfaction, and those who availed themselves of its advantages during the past year reduced their expenses to the small sum of \$3.10 per week, including room rent, board, fuel, light and washing. It is important that all who desire to secure rooms in the boarding hall should apply before arriving at Potsdam.

The normal courses of instruction and other important information will be found in the appendix (Document Q).

(Q.)

NORMAL SCHOOL CIRCULAR.

The following is the common form of circular for each of the State normal and training schools, located respectively at Brockport, Buffalo, Cortland, Fredonia, Geneseo, Oswego and Potsdam :

STATE OF NEW YORK :

DEPARTMENT OF PUBLIC INSTRUCTION, SUP'T'S OFFICE, }
ALBANY, August 1, 1872.

To School Commissioners and City Superintendents of Schools :

Your attention is respectfully invited to the following announcement relating to the State Normal and Training School at ———.

The design of the school is to furnish competent teachers for the public schools of the State.

Each county is entitled to twice as many pupils as it has representatives in the Assembly. For the want of qualified candidates the quotas of some counties may not be filled, while the number of eligible applicants from other counties may be greater than their quotas. Therefore, you need not limit your recommendations to any prescribed number, but encourage worthy and aspiring young men and women, who are qualified and intend to make teaching their vocation, to attend this school.

To gain admission to the school, pupils must be at least sixteen years of age, and must possess good health, good moral character and average abilities. They must pass a fair examination in reading, spelling, geography, and arithmetic (as far as the roots), and be able to analyze and parse simple sentences.

All appointments for admission are made by the State Superintendent of Public Instruction, subject to the required examination, upon the recommendation of the several school commissioners, or city superintendents of schools, whose duty

it is to use every reasonable means to secure the selection of suitable candidates.

It is suggested that you advertise where you will meet and examine applicants for appointments, at a time not later than fifteen days before the opening of the term. Recommendations should be made as early as practicable, and be mailed promptly to the Superintendent of Public Instruction at Albany.

FORM OF RECOMMENDATION.

To the Superintendent of Public Instruction :

..... hereby recommend of in the county of..... aged years, as possessing the health, scholarship, mental ability and moral character requisite for an appointment to the State Normal and Training School at

[Date.]

.....,
.....,
.....,

School Com'r.. of the County of.....

Special Privileges of Pupils.

Tuition, and the use of all text-books, are free. Students will be held responsible, however, for any injury or loss of books. They are advised to bring with them, for reference, any suitable books they may have. The amount of fare necessarily paid on public conveyances in coming to the school will be refunded to those who remain a full term.

Terms and Vacations.

The year is divided into two terms of twenty weeks each. The fall term commences on the first Wednesday in September, and the spring term on the second Wednesday in February. There will be an intermission for a week during the holidays.

All pupils should be present promptly at the opening of the term.

The examination for admission and classification will commence on Wednesday ; and a failure, on the part of candidates, to be present at that time, will subject them and the teachers to the inconvenience of a private examination.

COURSES OF INSTRUCTION.

ELEMENTARY ENGLISH COURSE.

First Year.

First Term.—Arithmetic, grammar, geography, reading (last half), spelling and impromptu composition, linear drawing (daily), penmanship (last half), vocal music (first half), light gymnastics (daily).

Second Term.—Arithmetic, grammar and analysis (first half), botany (second half), rhetoric and English literature, reading (first half), physiology and zoology (first half), United States history (second half), object and perspective drawing, composition (semi-weekly), penmanship (first half), vocal music (second half), light gymnastics (daily).

Second Year.

First Term.—Philosophy and history of education, school economy, civil government and school law, methods of giving object lessons and of teaching the subjects of the elementary course, declamation, essays and select readings.

The object lessons include lessons on objects, form, size, color, place, weight, sounds, animals, plants, human body and moral instruction.

Second Term.—Practice in training school, essays, select readings or declamations.

ADVANCED ENGLISH COURSE.

Students to be admitted to this course must pass a satisfactory examination in all the studies of the first year in the elementary English course.

First Year.

First Term.—Algebra, natural philosophy, general history, light gymnastics, geometry, compositions, declamations, botany (half term), select readings.

Second Term.—Algebra, book-keeping, physical geography, chemistry, geometry and trigonometry, light gymnastics, compositions, declamations and select readings.

Second Year.

First Term.—Same as the first term of the second year of the elementary English course.

Second Term.—Moral philosophy, compositions, mineralogy and geology, practice in training school, methods in higher studies, light gymnastics.

CLASSICAL COURSE.

Students to be admitted to this course must pass a satisfactory examination in all the studies of the first year in the elementary English course.

First Year.

First Term.—Algebra, geometry, general history, light gymnastics, botany (half term), Latin, compositions, declamations and select readings.

Second Term.—Algebra, light gymnastics, book-keeping, Latin, physical geography, and astronomy, geometry and trigonometry, compositions, declamations and select readings.

Second Year.

First Term.—Latin, light gymnastics, natural philosophy, Greek or modern languages, compositions, declamations and select readings.

Second Term.—Latin, moral philosophy, chemistry, light gymnastics, Greek or modern languages, compositions, declamations and select readings.

Third Year.

First Term.—Latin, philosophy of education, Greek or modern languages, light gymnastics, methods of giving object lessons and of teaching the subjects in the elementary English course, compositions, declamations and select readings.

Second Term.—Latin, compositions, Greek or modern languages, methods in higher studies, mineralogy and geology, practice in training school.

Diploma.

Students, who complete either of the above courses satisfactorily, will receive corresponding diplomas, which will serve as licenses to teach in the public schools of the State.

It will be seen by the preceding courses of study, that students who have thoroughly mastered the subjects named in the first year of the elementary English course, can in two years complete the advanced English course, or, in three years, the classical course.

Students may be admitted to any class on examination; but no person can graduate from any one of the prescribed courses without passing through the last two terms of that course.

Conclusion.

Allow me to urge you to use all proper means to extend information in regard to this school, that young persons who possess the requisite qualifications may be induced to participate in its benefits. Your experience must bear witness that the greatest need of the common schools is the service of more teachers who are thoroughly qualified; and I confidently trust that you will give a cheerful and prompt response to this call for your official action.

ABRAM B. WEAVER,
Superintendent of Public Instruction.

(R.)

ACADEMIES TO INSTRUCT COMMON-SCHOOL
TEACHERS.

The following academies have been designated to instruct Teachers' Classes during the academic year 1872-73, under the provisions of the statute (University Manual, page 38, § 3):

Counties.	Names of Academies.
Allegany.....	Alfred University, Academical Department. Friendship Academy. Genesee Valley Seminary (2).*
Broome.....	Binghamton Free Academy. Deposit Academy. Whitney's Point Union School. Windsor Academy.
Cattaraugus ..	Chamberlain Institute. Olean Academy and Union School. Ten Broeck Free Academy.
Cayuga.....	Auburn Academic High School. Moravia Union School. Port Byron Free School and Academy.
Chautauqua ...	Ellington Union School. Forestville Free Academy. Jamestown Union School and Collegiate Inst. Westfield Union School and Academy.
Chenango	Afton Union School and Academy. New Berlin Academy. Norwich Academy. Oxford Academy. Sherburne Union School.
Clinton.....	Champlain Union School. Plattsburgh High School.

* Provisional appointment: the annexed figure denotes the numerical order of the provisional appointment.

Counties.	Names of Academies.
Columbia	Claverack Academy and H. R. Institute. Spencertown Academy.
Cortland	Cincinnatus Academy. Cortland Academy.
Delaware	Delaware Academy. Delaware Literary Institute. Stamford Seminary. Walton Union School.
Erie	Aurora Academy. Clarence Classical Union School. Griffith Institute. Hamburgh Union School.
Essex	Elizabethtown Union School. Keeseville Union School.
Franklin	Fort Covington Academy.
Genesee	Cary Collegiate Seminary. Genesee and Wyoming Seminary. Rural Seminary.
Greene	Greenville Academy.
Herkimer	Academy at Little Falls. Fairfield Academy. West Winfield Academy.
Jefferson	Black River Conference Seminary. Hungerford Collegiate Institute. Union Academy of Belleville. Watertown High School.
Lewis	Lowville Academy. Martin Institute.
Livingston	Dansville Seminary (1). [*] Genesee Wesleyan Seminary. Genesee Academy. Mount Morris Union School.
Madison	Canastota Union School (4). [*] Central New York Conference Seminary.

^{*} Provisional appointment : the annexed figure denotes the numerical order of the provisional appointment.

Counties.	Names of Academies.
Madison	Evans Academy. Oneida Seminary. Yates Union School.
Montgomery..	Amsterdam Academy.
Niagara	Lockport Union School. Wilson Union School.
Oneida	Rome Academy.
Onondaga	Baldwinsville Academy. Jordan Academy. Munro Collegiate Institute. Onondaga Academy. Skaneateles Union School. Syracuse High School.
Ontario	Canandaigua Academy. Geneva Classical and Union School.
Orleans	Albion Academy. Holley Union School. Medina Free Academy. Yates Academy.
Oswego	Falley Seminary. Mexico Academy. Pulaski Academy.
Otsego	Gilbertsville Academy. Unadilla Academy.
Rensselaer	Lansingburgh Academy (5). Nassau Academy.
St. Lawrence..	Canton Union School. Gouverneur Wesleyan Seminary. Lawrenceville Academy.
Saratoga	Halfmoon Academy. Mechanicville Academy. Waterford Union School.
Schoharie	New York Conference Seminary.
Steuben	Franklin Academy, Prattsburgh. Rogersville Union Seminary. Woodhull Academy.

Counties.	Names of Academies.	
Sullivan	Liberty Normal Institute, Monticello Academy (3).*	
Tioga.....	Candor Free Academy. Owego Free Academy. Waverly Institute.	
Tompkins	Groton Academy. Ithaca Academy. Trumansburgh Academy.	
Warren	Glen's Falls Academy. Warrensburgh Academy.	
Washington ..	Fort Edward Collegiate Institute. Sandy Hill Union School. Washington Academy.	
Wayne	Lyons Union School. Macedon Academy. Newark Union School and Academy. Palmyra Classical Union School. Red Creek Union Seminary. Sodus Academy.	
Wyoming	Attica Union School. Middlebury Academy. Pike Seminary.	
Yates	Penn Yan Academy.	117

* Provisional appointment: the annexed figure denotes the numerical order of the provisional appointment.

(S.)

LIST OF SCHOOL COMMISSIONERS IN THE STATE
OF NEW YORK,

FOR THE TERM COMMENCING JANUARY 1, 1873.

Counties.	Dists.	Names.	Post-offices.
Albany	1.	John F. Shafer.....	Cedar Hill.
	2.	Zebediah A. Dyer.....	East Berne.
	3.	Thomas Helme.....	McKownville.
		John O. Cole (City Supt.)...	Albany.
		Murray Hubbard (Pr. Bd. Ed.)	Cohoes.
Allegany ..	1.	Frank S. Smith.....	Angelica.
	2.	Walter D. Renwick.....	Friendship.
Broome	1.	Hiram Barnum.....	Osborne Hollow.
	2.	George Jackson	Binghamton.
		G. L. Farnham (Sec. Bd. Ed.).	Binghamton.
Cattaraugus.	1.	Newton C. McKoon.....	Ellicottville.
	2.	Henry M. Seymour.....	Salamanca.
Cayuga	1.	Hulbert Daratt.....	Cato.
	2.	Charles H. Greenfield.....	Niles.
	3.	Lauren M. Townsend	Moravia.
		B. B. Snow (Sec. Bd. Ed.)	Auburn.
Chautauqua,	1.	Henry Q. Ames.....	Sberman.
	2.	Lucius M. Robertson.....	Frewsburgh.
Chemung...		Jonas Sayre Van Duzer	Horseheads.
		E. B. Yeomans (Sec. Bd. Ed.),	Elmira.
Chenango ..	1.	Matthew B. Ludington.....	N. Norwich.
	2.	David G. Barber	Oxford.
Clinton	1.	William B. Dodge.....	Schuyler Falls.
	2.	Robert S. McCullough.....	Chazy.
Columbia ..	1.	John Strever.....	Clermont.
	2.	Hiram Winslow.....	Green River.
		Cyrus Macey (City Supt.)....	Hudson.
Cortland ...	1.	George W. Miller.....	Marathon.
	2.	Rufus T. Peck.....	Solon.
Delaware...	1.	George D. Ostrom.....	Franklin.
	2.	Amasa J. Shaver.....	Meredith.

Counties.	Dists.	Names.	Post-offices.
Dutchess ...	1.	Derrick Brown.....	Poughkeepsie.
	2.	Edgar A. Briggs (Box 883)..	Poughkeepsie.
		R. Brittain (Clk. Bd. Ed.) ...	Poughkeepsie.
Erie	1.	Charles A. Young	Tonawanda.
	2.	George Abbott.....	Hamburgh.
	3.	Russel J. Vaughan.....	Springville.
		J. A. Larned (City Supt.)....	Buffalo.
Essex	1.	William H. McLenathan.....	Jay.
	2.	Thomas G. Shaw	Olmsteadville.
Franklin ...	1.	Sidney P. Bates	Malone.
	2.	William Gillis	Fort Covington.
Fulton		John M. Dougall.....	Johnstown.
Genesee....		Richard L. Selden.....	Le Roy.
Greene	1.	Samuel S. Mulford.....	Tannersville.
	2.	Robert Halstead.....	Greenville.
Hamilton...		Isaac H. Brownell.....	Northville, P. O.
Herkimer ..	1.	John D. Champion.....	Little Falls.
	2.	William W. Bass.....	Jordanville.
Jefferson ...	1.	Willard C. Porter.....	Adams Centre.
	2.	Henry Purcell.....	Watertown.
	3.	George H. Strough.....	Lafargeville.
		D. G. Griffin (City Supt.)....	Watertown.
Kings.....	1.	C. Warren Hamilton.....	New Lots.
		Thos. W. Field (City Supt.)..	Brooklyn.
Lewis	1.	William D. Lewis	Constableville.
	2.	Charles A. Chickering.....	Copenhagen.
Livingston..	1.	John W. Byam.....	Livonia Station.
	2.	Robert W. Green.....	Dansville.
Madison....	1.	Joseph E. Morgan.....	Earlville.
	2.	Paul S. Maine.....	Perryville.
Monroe	1.	Edwin A. McMath (158 Pow- ers Block).....	Rochester.
	2.	George W. Sime.....	Brockport.
		S. A. Ellis (City Supt.).....	Rochester.
Montgomery		George F. Cox.....	Amsterdam.
New York..		Henry Kiddle (City Supt.) ..	New York.
Niagara ...	1.	William Gritman.....	Lockport.
	2.	Esek Aldrich.....	Johnson's Creek.
		Jas. Ferguson (City Supt.)...	Lockport.

Counties.	Dists.	Names.	Post-offices.
Oneida	1.	John R. Pugh.....	Utica.
	2.	Charles T. Burnley.....	Clinton.
	3.	Henry S. Ninde.....	Rome.
	4.	Horace O. Farley.....	Prospect.
		A. McMillan (City Supt.)....	Utica.
Onondaga ..	1.	J. Warren Lawrence.....	Plank Road.
	2.	James W. Hooper.....	Geddes.
	3.	Parker S. Carr	Fayetteville.
		E. Smith (City Supt.).....	Syracuse.
Ontario	1.	Hyland C. Kirk	Phelps.
	2.	Robert B. Simmons.....	Allen's Hill.
Orange.....	1.	George K. Smith	Monroe.
	2.	Asa Morehouse.....	New Hampton.
		R. V. K. Montfort (City Supt.),	Newburgh.
Orleans		William W. Phipps.....	Albion.
Oswego	1.	Isaac W. Marsh	Bowen's Corners.
	2.	William B. Howard.....	Fulton.
	3.	John W. Ladd.....	Mexico.
		V. C. Douglass (City Supt.)..	Oswego.
Otsego	1.	Nahum T. Brown.....	East Worcester.
	2.	Warren L. Baker.....	Portlandville.
Putnam		John H. Spencer.....	Farmer's Mills.
Queens	1.	Eugene M. Lincoln.....	Glen Cove.
	2.	Garret J. Garretson.....	Newtown.
		Alanson Palmer (City Supt.)..	Long Island City.
Rensselaer..	1.	Amos H. Allen.....	Petersburgh.
	2.	George W. Hidley.....	Wynantskill.
		David Beattie (City Supt.)...	Troy.
Richmond..		James Brownlee	Port Richmond.
Rockland...		Spencer Wood	Clarkstown.
St. Lawrence	1.	Dan. S. Giffin.. ..	Heuvelton.
	2.	A. Barton Hepburn.....	Colton.
	3.	Barney Whitney.....	Lawrenceville.
		R. B. Lowry (City Supt.) ...	Ogdensburgh.
Saratoga ...	1.	Neil Gilmour.....	Ballston Spa.
	2.	Oscar F. Stiles.....	Saratoga Springs.
Schenectady,		David Elder	Van Vechten.
		S. B. Howe (City Supt.).....	Schenectady.

Counties.	Dists.	Names.	Post-offices.
Schoharie...	1.	John S. Mayhan.....	Gilboa.
	2.	John Van Schaick.....	Cobleskill.
Schuyler...		Charles T. Andrews.....	Watkins.
Seneca		Henry V. L. Jones.....	Ovid.
Steuben	1.	Zenas L. Parker.....	Bath.
	2.	Reuben H. Williams.....	Woodhull.
	3.	William P. Todd.....	Canisteo.
Suffolk	1.	Horace H. Benjamin.....	Riverhead.
	2.	S. Orlando Lee.....	Huntington.
Sullivan ...	1.	Charles Barnum.....	Monticello.
	2.	Isaac Jelliff.....	Liberty.
Tioga		Lemuel D. Vose.....	Owego.
Tompkins ..	1.	Orville S. Ensign.....	Ithaca.
	*2.	Robert G. H. Speed.....	Caroline.
Ulster	1.	Cornelius Van Santvoord	Kingston.
	2.	Ralph Le Fevre	New Paltz.
	3.	Harrison R. Winter.....	Phoenicia.
Warren....		Daniel B. Ketchum.....	Glen's Falls.
Washington	1.	Ezra H. Snyder.....	Argyle.
	2.	Edward C. Whittemore.....	Adamsville.
Wayne.....	1.	Joseph H. L. Roe.....	Wolcott.
	2.	Felix J. Griffen	Marion.
Westchester,	1.	Joseph H. Palmer	Yonkers.
	2.	Casper G. Brower.....	Tarrytown.
	3.	Joseph Barrett.....	Katonah.
Wyoming ..	1.	Edwin S. Smith	Dale.
	2.	Edson J. Quigley.....	Gainesville.
Yates		Bradford S. Wixom.....	Italy Hollow.

* For term commencing January 1, 1872.

(T.)

REPORTS OF SCHOOL COMMISSIONERS AND OF
CITY SUPERINTENDENTS OF SCHOOLS TO THE
SUPERINTENDENT OF PUBLIC INSTRUCTION.

CHENANGO COUNTY—FIRST DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In compliance with your request, I most respectfully submit the following report :

Were we to place side by side a school as taught ten years ago, with one taught to-day, the efficiency of the latter over the former would be very marked indeed. If we go back twenty years, a more striking difference would be seen. Opinion is often given and judgment rendered, without weighing evidence. Thus it is with many men in regard to our present school system. The same horizon that circumscribed their vision in years past, remains the limit to-day, and they see nothing good only as it partakes of former times and things obsolete. But notwithstanding such impediments in the way of progress, our schools are marching forward, and the system under which we are working is demonstrating each succeeding year its efficiency.

As time advances different circumstances control, new wants appear and changes must necessarily be made. Among the more important ones, earnestly advocated by many leading educators, are compulsory attendance at the public schools, uniform examinations of teachers throughout the State, and the prohibiting by law corporal punishment, all of which, if carried into effect, might result in good ; but they are questions that should be well considered before becoming law. Much the larger number, proportionately, of children not attending school is found in cities. A law to regulate the attendance in such places, no doubt, would be salutary. But for the rural districts the necessity is not so great ; proper

persons elected trustees would, in a great measure, overcome the evil. If allowed fair compensation for their labor (which is no more than bare justice), they would feel it their duty to look after the interests of schools more than they now do. A comparatively small effort, in my opinion, on the part of trustees, would bring into school nearly every pupil that should so attend. A few dollars thus expended would remove much of the delinquency, which, it is claimed, law should be enacted to accomplish. As the matter now stands, trustees pay but little or no attention to the question of attendance or non-attendance at school, and it cannot be expected they will labor much unless rewarded.

A uniform examination of teachers would remove much of the responsibility now resting upon commissioners, just wherein they fail in moral courage to bear such burdens. If every commissioner would act in accordance with the dictates of his own conscience, but little trouble would arise under the present system of examination.

Unless corporal punishment is reformatory in our public schools, it should at once be prohibited by law. Good as well as evil has resulted from the practice. The evil is more noticeable than the good, for almost every case of improper punishment is brought before the public in some form; on the other hand, the good results come not so much from the exercise of punishment as from the acknowledged right of the teacher to enforce obedience by this means if necessary. Some teachers pass through term after term without resorting to it, because their pupils know they will, in case of necessity, apply it in one way or another, which right vested in a teacher commands obedience without the use of the rod. Whether our common schools would be as well governed if positive law prohibited the right to punish physically, is questionable.

My views in regard to the library question are the same as stated in former reports. Libraries are of but little use, and trustees' reports respecting them are vague and unreliable. The necessity for such reading matter twenty years ago does not exist now, hence their usefulness can never be what it was

then. Under these circumstances it seems unnecessary that a portion of the public money should be apportioned for such purposes. A fund for school apparatus would be more in keeping with the wants of districts.

The teachers' institute held in September last, at Oxford, compares well with those of former years. The number of names registered exceeds that of some former institutes. The interest exhibited and benefit derived were fully equal to expectations. Our instructors, Rev. J. Winslow and Prof. A. J. Robb, are gentlemen well qualified for such work. Moral worth was made a prominent feature in their instruction, presented as one of the most important requisites, without which teachers could not be successful in their work. Their aim was to excite the mind to a more noble bearing and to higher aspirations in the great work of teaching. Long and kindly will they be remembered for the good work done while with us.

The academies in this district are doing a good work. A large majority of the teachers of this county have been members of the teachers' classes, and the instruction received has rendered many of them good, zealous workers. The one at Norwich has been growing in popularity and stands well in the line of such institutions. The one located at New Berlin rests upon a firmer basis and commands a greater confidence than ever before.

The union graded school at Sherburne deserves more than a passing notice. From the time of its organization to the present, there has been an increasing interest which places the school second to none in the county. The new brick building erected two years ago, notwithstanding some defects which experience has shown, is worthy of commendation, the aim having been to build for the wants of a high school, and in keeping with the times and place. The prominent feature of the school is not in a fine building, nor showy equipage, but in a course of study, ample in its extent, reaching from the primary to the classical, and in the thoroughness of its instruction.

Eleven candidates have been recommended for admission to normal schools during the past year—to Brockport, six, and Cortland, five—an evidence that teachers are seeking means to better qualify themselves for the school-room.

Another faint effort has been made in the village of Norwich to organize a high graded school. Many of the leading inhabitants see the necessity and realize some of the advantages derived from such a union. At present there is one academy, four district schools, and one or two private schools, all of which are well attended. But for a growing and enterprising village of nearly six thousand inhabitants like Norwich, the school facilities are far behind what they should be. Under the divided interest now existing, it cannot be expected schools can be built up to meet the wants of an intelligent people. The merging of the whole school interest in one central idea would produce beneficent results, unforeseen by its warmest advocates. Before another twelve months shall have passed, it is hoped that the good work begun will be completed.

In my round of visits thus far, it is gratifying to learn that there is general satisfaction with the schools of this district. The majority of them are as efficient as means and appliances will admit. Were better wages paid, and school-rooms furnished with only strictly necessary apparatus, it would place them far in advance of what they are at present. Action taken to force trustees to supply the school-room with these necessities, would be placing aids in the hands of teachers, of which now they are sadly deficient. Some method devised to relieve the weaker districts and place them nearer on an equality with the more wealthy, would be an act of justice; for to support a school with an assessed valuation of from ten to twenty thousand dollars, is much more burdensome than where the valuation reaches from fifty to one hundred thousand. As competent a teacher is required in the one case as the other, and if that principle is carried out, the taxation is twice or thrice greater in the former case than in the latter.

The liberal provisions made by the State for educational

purposes, and the earnest advocacy of reforms and improvements, are sources of gratification. Making the best use of means placed within our reach, to advance general intelligence, is a moral obligation binding upon every man. Efforts put forth, that shall successfully grapple with the great questions of the day, will soon render the school system of the Empire State second to none in the world.

For favors rendered and forbearance shown on the part of the Superintendent of Public Instruction, I shall ever feel grateful. Trusting that future business relations may prove as harmonious as they have been in the past, I am very sincerely,

Your ob't servant,

M. B. LUDINGTON,

School Commissioner.

NORTH NORWICH, *December 31, 1872.*

CLINTON COUNTY—FIRST DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In compliance with your request, I have the honor to report, in addition to the statistical and financial abstracts previously submitted, that the ninety-two school districts under my supervision are all in fair running order, though a large proportion of them are too small and weak to build suitable school-houses and support large and prosperous schools, as will readily appear from the following statistics :

The whole number of days taught, as found from abstracts of trustees' reports, is 12,878 ; but to this number should be added, for districts which employed more than one teacher at the same time, 5,544 days, making a total of 18,422 days actually taught. The whole number of days of attendance divided by the whole number of days taught gives a little less than twenty-four pupils to each teacher employed, including summer and winter terms. But as the seventeen schools in dis-

trict No. 1, Plattsburgh, the seven in district No. 1, Keeseville, and several other schools average over forty each, it is evident that the general average, not including such larger schools, must be much less, probably not exceeding fifteen to each school. The attendance is much less in summer than in winter. I find by reference to teachers' reports, that there were fifteen summer schools that did not average six pupils each, and ten others that fell short of ten each for the whole summer term. Such small schools are usually maintained in winter as long as a fair attendance can be secured, and then the summer term limited to the time necessary to secure the public money; and as every day beyond that diminishes the average attendance, it is, consequently, financial policy to limit the summer schools to the time necessary to complete the twenty-eight weeks.

The valuation of the property in several of these districts hardly reaches \$5,000, and there are about thirty districts in which it does not exceed \$10,000 each. I have, during my term of office, carefully rejected every application for the formation of new districts.

I find it my duty to present another unfavorable aspect of the schools of my district, one which I judge is not limited to Clinton county, and leave it to others, who have the matter in hand, to provide the remedy. I refer to the frequent change of teachers. The abstract of trustees' reports does not furnish the correct number of teachers employed. There were in this district one hundred and twenty-one schools which intended to maintain a school twenty-eight weeks or more. In these schools were employed one hundred and seventy-eight teachers, a number less by fifty-two than indicated by the abstract of trustees' reports, fifty having taught in two districts and two in three districts each, consequently reported two or three times each. Of this number thirty-eight were males; and one hundred and forty, females; one hundred and seventy-four were licensed by local authorities, and four, as reported, by the Superintendent of Public Instruction. Only four of the male teachers were employed in the summer schools. Male teach-

ers are generally employed only in such schools as it is thought females are incapable of teaching, and hence it seems hardly correct to say that lady teachers receive less pay than gentlemen for doing the same work. Of the one hundred and seventy-eight teachers, one hundred and fourteen, or about sixty-four per cent, taught only one term each during the year in this commissioner district, and most probably in no other.

From what source are these small, short-term schools to be supplied with teachers? No graduates from the state normal schools will want to spend their time in them, even if the districts could afford to pay them a fair compensation. Most of the teachers are obtained from the districts where they are employed; young persons educated in the same school. The small wages paid, and the short terms of service in such schools, give no encouragement to the teachers to attend teachers' institutes and associations to learn the best methods of teaching; but they teach as their fathers were taught years ago in the same schools, thus handing down, from age to age, the same plans of organization and the same methods of teaching, without any knowledge of modern improvements. By reference to the last annual report of the Superintendent of Public Instruction, I find this frequent changing of teachers is not limited to Clinton county.

In view of the great number of districts that are thus evidently deprived of the advantages derived from improved methods of teaching, as taught at our institutes and associations, allow me most respectfully to suggest one partial remedy that has occurred to me, which is to require school commissioners to hold, semi-annually, town institutes of one week each, in each town, and to grant licenses only to such teachers as attend punctually one of these institutes, limiting the licenses given at the spring institute to six months, and at the fall to one year; also limiting the first grade to two years, to be obtained only at the county institute, and holding no other examinations. I think I can see many good results growing out of such an arrangement.

The two union graded schools continue to be the schools of this district. The prosperity of the one located at Plattsburgh was checked last fall by the loss by fire of the academy building, in which were kept the grammar and academic departments of the school. These departments now occupy rooms rented for the purpose, but the inhabitants intend soon to erect new buildings. Their schools are well graded, employing seventeen teachers. Vocal music is taught in all the grades by a highly qualified teacher. A tuition fee is charged for tuition in the academic department. The union graded school at Keeseville has an academic department, free to resident pupils.

Much attention, during this fall term, has been given to the teachers' class; and methods of teaching primary classes, as well as a knowledge of all the branches taught, have received special attention.

I believe only one graduate from the normal schools is now teaching in this commissioner district, though this county is continually furnishing them with pupils.

Many other large schools in this district employ first-class teachers, and maintain good schools, benefiting in a high degree all who patronize them, but they can never come up to the highest point of usefulness resulting from a uniform course of studies, uniformity of classification and uniform methods of teaching, until they adopt the union graded school system. The one is stationary, the other progressive.

The Clinton County teachers' institute was held at Plattsburgh, commencing August 13th and continuing ten days, and was conducted by Prof. I. B. Poucher, assisted by Miss M. S. Cooper, both of the Oswego Normal and Training School. Notwithstanding the extra efforts made by my associate commissioner and myself to secure a general attendance, there were less than one hundred teachers that were benefited by the institute. The conductors met our highest expectations, and by their untiring efforts maintained until its close a high degree of interest among the teachers.

The seventh annual meeting of the Clinton County teachers'

association was held at West Chazy commencing December 26th, and continued three days. It was well attended by nearly all the live teachers in the county, and was interesting and profitable. A session of similar character was held one year previous at Schnyler Falls, leaving a good and beneficial influence upon all connected with it.

Permit me, in conclusion, to tender my thanks to teachers and pupils for their respect, to town and school officers for their cheerful co-operation, and to the Superintendent of Public Instruction for his kind forbearance, and to conclude the duties of this office by reverently asking that Heaven's blessings may rest upon our common schools.

IRA D. KNOWLES.

PERU, December 31, 1872.

CORTLAND COUNTY—FIRST DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The following report is respectfully submitted :

The following financial and statistical tables present leading items of trustees' reports for the years 1871 and 1872.

STATISTICAL.

NAMES OF TOWNS.	No. of districts.	No. of children between the ages of five and twenty-one.		Number in attendance.		Average attendance.	
		1871.	1872.	1871.	1872.	1871.	1872.
Cortlandville.....	24	1,656	1,416	1,101	1,019	553	478
Cincinnati.....	8	327	353	285	280	122	119
Freetown.....	8	307	312	278	270	138	137
Harford.....	7	252	278	257	305	131	137
Lapeer.....	9	275	256	243	251	194	196
Marathon.....	7	493	480	418	456	212	208
Virgil.....	20	538	569	484	475	258	250
Willet.....	8	293	251	244	234	122	122
Total.....	91	4,141	3,915	3,310	3,280	1,670	1,567

It will be noted that the number of children of school age for the year 1872 is less by 226 than for the year 1871, while the whole number in attendance was but thirty less.

FINANCIAL.

NAMES OF TOWNS.	Total amount received and expended.		Amount raised by tax.	
	1871.	1872.	1871.	1872.
Cortlandville	\$7,697 47	\$7,568 31	\$3,111 30	\$3,300 00
Cincinnati	1,985 33	1,837 12	733 47	733 57
Freetown	2,318 87	1,765 47	773 27	393 55
Harford	3,953 65	2,112 54	2,963 30	1,237 74
Lapeer	2,016 66	1,514 70	735 79	433 74
Marathon	2,876 14	2,926 73	1,418 55	1,530 80
Virgil	3,880 06	3,767 56	935 39	931 30
Wilket	1,670 89	1,587 74	733 84	691 48
Total	\$36,229 09	\$32,180 06	\$11,231 81	\$9,279 74

The total amount paid for teachers' wages, for the year 1871, was \$20,713.60, and for the year 1872, \$19,739.92. The average weekly compensation of teachers, for the year 1871, was \$8.02; for the year 1872, \$7.75. The average expense per pupil for 1871, was \$7.91; for 1872, \$7.06, being eighty-five cents less.

The tendency of public opinion is to greater liberality in building and repairing school-houses. In the village of Marathon, where but a few years ago, a vote could not be secured to raise comparatively a small sum for building purposes, one of the finest school buildings in the county has been erected, during the past year, at an expense of more than \$8,000. New school-houses have also been built in some of the rural districts, and others have been thoroughly repaired.

The number of school districts having more than one trustee has been reduced to six, and is gradually lessening year by year. This class of officers, receiving no compensation for services, and oftentimes being subjected to unreasonable fault-finding and unfriendly criticism, as a whole, have done well. I have but a word to say of the teachers. With few exceptions they have done well, and are to be commended for their

earnest endeavors to discharge their duties faithfully and efficiently. I am glad to state that they are more fully compensated than formerly. There are some persons, however, who mournfully assert that teachers are paid too much, and even blame the commissioner for his efforts to elevate their qualifications, for fear they will demand and receive higher wages, thus incurring additional taxation. The business of teaching is no sinecure, and there is no department of labor more worthy of adequate compensation.

Another year's experience confirms me more fully in the opinion, expressed in my last report, that young persons are allowed to teach at too early an age. The enactment of a law prohibiting persons under the age of eighteen from teaching, would be the most immediate and efficient means of improving the condition of the schools. There are but few boys and girls under this age that have the judgment and discretion so essential to a proper discharge of the responsible duties of a teacher.

Much has been said in regard to the qualifications of teachers and with propriety too. But little, so far as my observation extends, has been said as to the qualifications of school commissioners. It is a notorious fact that many have secured the position through political machinery, who are incompetent; that is to say, they are put in a position to supervise, criticise and instruct a body of teachers, a majority of whom are better qualified, in all respects, than themselves. This condition of affairs is humiliating to the teachers. How can it be remedied? I answer, by introducing civil service reform in this particular. School commissioners should be selected by competitive examination, and not by intriguing, wire-pulling politicians, regardless of qualifications. There should be selected by the Superintendent of Public Instruction, or other competent authority, a committee of three or five distinguished educators, in each senatorial district, to examine candidates for the office of school commissioner, at stated periods; and the names of two or three sustaining the best examination should be presented to the Superintendent of Public Instruction, who should

appoint one of the number thus selected, school commissioner, for three years. No one should be eligible to reappointment until after having shown by another examination his superior qualifications. A plan of this kind would doubtless aid materially, in elevating the standard of education, and prevent presuming ignorance from usurping the place that should be occupied by worth, intelligence and capability.

Since academies occupy a kind of anomalous relation to our public school system, their interests being in a measure antagonistic to free schools, the propriety of sustaining them in part, from the State treasury, is being seriously questioned, and freely discussed. There is but one academy in this commissioner district, and for some years it has had but a feeble existence. I am fully aware that there are some academic schools that are doing a much needed and useful work, and should be liberally sustained; but when an academy becomes so far reduced that the trustees are willing to farm it out, without pecuniary consideration, to incompetent teachers—to teachers even who are barely qualified to teach a district school, then the propriety of its longer existence at public expense, is questionable. A person to teach any grade of district school must obtain the necessary license; but any one, competent or otherwise, may take the position of principal or teacher in an academy, without license. Teachers' classes thus fall, sometimes, into the hands of those who are wanting in most of the qualifications necessary to a proper discharge of their duties toward them. A half hour per day devoted to a teachers' class, by an illy qualified principal, will not prepare a class of teachers very rapidly or very thoroughly, for their work. The ten dollars per capita, paid by the State for each member of the class, seems to be the prominent feature in the case, regardless of results.

It is obvious, in view of the foregoing, that the Regents should require academic teachers to be licensed in accordance with a fixed and elevated standard; and, furthermore, they should select such academies to instruct teachers' classes as are in charge of teachers of undoubted qualifications.

Cortland Normal School continues to sustain its reputation as one of the most efficient institutions of the kind in the State. The attendance during the year has been larger than during previous years. The wisdom of establishing normal schools is becoming more apparent, and it is hoped that measures will speedily be taken to free them from all encumbering, local obligations.

The examination of candidates for the Cornell free scholarship was held at Cortland, in August last, by the school commissioners, under the amended law. The candidates exhibited a higher grade of scholarship than at any previous examination. These free scholarships, connecting the institution with the public schools of all parts of the State, must, in time, exert a wide and salutary influence.

The last session of the Cortland County teachers' institute was held at Homer. Prof. O. Morehouse, of Albion, acted as conductor, doing his work well. Mrs. Mina Metcalf, of Randolph, served as assistant, and both gained the confidence of all as educators of intelligence and ability. The attendance was large, being about two hundred. The session was one of profit and usefulness to the teachers.

It is believed that in no part of the State have teachers' associations and school conventions been reduced to system, so fully as in Cortland county. During the past year, nearly all the schools and teachers have been assembled in their respective towns for review, discussion and comparison of methods of teaching; and for the purpose of adding interest to these occasions, the exercises were interspersed with essays by pupils and teachers, prize spelling, addresses, vocal and instrumental music. The attendance in many instances, by almost the entire community, indicates the interest and influence that have thus been awakened.

This day closes fifteen years' service as school commissioner. A retrospective glance brings to view marked and decided improvements in the condition of the schools. During this period, our wise and beneficent free school system has been inaugurated throughout the State; the basis of apportionment

of the public moneys has been greatly modified for the better; normal schools have been established in various sections of our great commonwealth; teachers' institutes have become more general and more efficient, and union free schools have sprung up in every direction. Cornell University, which, at the beginning of this period, had no existence, now stands in all its magnificent proportions, literally a "light set upon a hill," beaming with kindly rays upon our public schools. In this commissioner district, the Cortland Normal School has been established; an efficient union free school at McGrawville has been instituted; school-house sites have been enlarged and improved; many new school-houses have been built in the rural districts, and in several of the villages costly school edifices have been erected. It is safe to assert, that at no previous time have the schools been in better condition than at present.

I have striven for the single purpose of elevating the standard of teachers' qualifications, and of increasing the usefulness of the schools; and I have the pleasant satisfaction of knowing that these efforts have, in a measure, been crowned with success. There is no pleasanter field of labor than the cause of education, and although the pecuniary compensation may not always be ample, yet the consciousness of aiding in elevating the moral, social and intellectual condition of our fellow-men, will ever bring the most pleasing rewards.

D. E. WHITMORE,
School Commissioner.

MARATHON, Dec. 31, 1872.

CORTLAND COUNTY—SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—In compliance with your request, I respectfully submit the following report.

In the following tables will be found some of the more important statistical and financial items from my abstracts of trustees' reports:

STATISTICAL.

NAMES OF TOWNS.	No. of districts.	No. of children between the ages of five and twenty-one.		Number in attendance.		Average attendance.		Value of school-houses and sites.	
		1870.	1872.	1870.	1872.	1870.	1872.	1870.	1872.
Cuyler	17	460	436	401	376	189	168	5,715	4,850
Homer	30	996	1,029	638	664	318	341	10,880	10,475
Preble	12	386	374	319	315	136	133	4,840	2,940
Scott	9	334	331	307	279	148	150	4,780	5,375
Solon	10	308	338	222	304	134	135	2,865	2,525
Taylor	11	361	369	324	317	168	151	3,000	2,490
Truxton	14	565	522	497	430	249	206	4,695	3,940
Total	98	3,410	3,379	2,783	2,707	1,337	1,284	36,905	33,865

It will be readily seen in the above table that the number of children between the ages of five and twenty-one is thirty-one less in 1872 than in 1870. The number in attendance, seventy-six less; the average attendance, fifty-three less. The number of male teachers employed during the year was forty-two; the number of female teachers, one hundred and twenty-five.

FINANCIAL.

NAMES OF TOWNS.	Total amount received and expended.		Amount raised by tax.	
	1870.	1872.	1870.	1872.
Cuyler	\$2,088 87	\$2,716 61	\$911 91	\$937 67
Homer	4,886 51	4,140 23	1,560 13	1,438 35
Preble	2,461 03	1,953 47	1,000 56	743 63
Scott	1,665 26	1,730 33	658 08	653 40
Solon	2,080 37	1,857 10	865 77	637 97
Taylor	1,852 63	1,866 47	514 47	574 47
Truxton	3,678 25	3,275 59	1,123 65	1,276 94
Total	\$19,552 93	\$17,529 86	\$5,663 57	\$5,253 43

An examination of the above table shows that the amount expended in 1872 was \$2,023.04 less than in 1870; that the amount raised by tax was \$411.14 less. The amount expended for teachers' wages was \$25.62 more than in 1870. The amount of public money apportioned to the districts was \$422.93 less than in 1870. The highest wages paid any male teacher during the year was \$15.00 per week; the lowest, \$5.00. The highest wages paid any female teacher was \$7.50; and the

lowest, \$3.00 per week. The average expense of instructing each pupil in attendance during the year was \$6.48. Of the whole number of districts under my supervision, only ten have three trustees.

In respect to the condition of the schools, I am able to say, that whereas three years ago it was the exception, upon entering the school-room, to find classes thoroughly drilled in the work passed over in their various studies, now the exception has become the general rule, and, I believe, the teachers of this district, as a body, are earnestly laboring to make their instruction thorough and efficient. The school associations held in each town during the year have done much to inspire both teachers and pupils with the necessity of doing such work in the school-room as they will wish to present to the public; and, by these yearly convocations, a new impetus seems to be given to the cause of education. A majority of those who taught in the summer schools found their way, at the close of their terms, to the teachers' classes established in the Cortland Academy and Normal School, showing a desire to better prepare themselves for their work. With the present corps of teachers in those institutions of learning, we look with bright prospects to the higher standard which the teachers of Cortland County must take in the future.

A teachers' institute was held in this county in October last at the village of Homer, under the management of the commissioners. Prof. O. Morehouse, of Albion, N. Y., assisted by Mrs. Mina Metcalf, appointed as instructors by the Department, did good service. As conductor, Prof. Morehouse is a very efficient worker, showing earnestness and decision at every step, and laboring faithfully to secure to the teacher a higher proficiency as a necessary qualification for the instruction of youth. Mrs. Metcalf introduced many useful methods in primary instruction, and carried away with her the best wishes of the institute.

In my previous reports I have urged the necessity of applying the library money to the purchase of globes and maps. In this opinion I am more confirmed, as I pass from school to

school and find not one out of twenty schools in possession of a globe, and only a scanty supply of maps. The want of a uniform series of text-books prevails to some extent in the schools, making the labors of the teachers less effective, and thereby preventing suitable classification of pupils for the purposes of instruction. I hope the day is not far distant when those in authority will devise means to compel the use of the same series of text-books in every school in the State. Then, and not until then, will one teacher be able to so classify his pupils as to be able to instruct a school of sixty pupils more easily than he can one of thirty now.

At present, the practical utility of the knowledge imparted is made, "to some extent, the primary object of education, instead of the expansion of the various faculties of the mind. Parents usually appear to think, if they send their children to school and never visit it themselves, they are doing all that is necessary; and a general disposition prevails to throw all responsibility upon the teacher. Both instructor and pupils require sympathy much oftener than they receive it. I know of nothing which so animates and encourages the teacher as the frequent visits of parents and others. Nothing can inspire the pupils more than the presence of their parents, and nothing can supply the place of their zealous co-operation and frequent visits.

I believe investigation, and a few years' trial, have proved that the free school system is the only one consistent with the national character of our schools. This being so, neither the parsimony of the selfish, the prejudices of the ignorant, nor the insidious attacks of the enemies of liberty, will endanger its permanency or impair its usefulness. To me it appears consistent, that if the State has anything at all to do with education, if it has a right to impose a tax either directly or indirectly for the maintenance of schools, it must also have a right to prevent these means being ineffectual in educating the people. By adopting a system of national education, we declare that it is not an individual or parental duty, but a State one; and government has undoubtedly the same right to

compel the attendance of children, when they are not sent by parents, that it has to compel the payment of school tax when necessary. Nor would the rights of any parents be violated. No one can claim the unenviable right of keeping his children in ignorance, or the distinction of depriving them of the benefits of instruction provided by the State. Every person living in civilized society enjoys certain advantages as a social being, and society has the power of demanding that he be qualified to reciprocate those benefits. It therefore provides for his education not merely on the ground of benefit to the recipient individual, but to the country of which he is a citizen. The parent cannot demand to do that which is obviously wrong in itself, hurtful to his offspring, and opposed to the interests of the country. Rendering attendance compulsory would not at all affect those who are willing to send, and those who are not would only be prevented doing an injury to their children and to the State. The right of the parent to direct every action of his child is not a natural one, and should not therefore in this matter be made legal. We do not recognize in the former a power to oblige his offspring to steal, and in this way injure the State; then why recognize a right to keep them in ignorance? The rights of the State are as much natural rights as those of parents, and, having the same origin, cannot be incompatible; neither can there be a just claim to exemption from doing what is just.

I am confident, notwithstanding the many defects here and there existing, that the school year just closed has been one of much improvement, not only in the management of the schools, but also in methods of instruction; and, as I re-enter upon another term, I fully resolve to discharge the duties of my office with greater fidelity, if possible, and with a just appreciation of the necessity of a higher standard of qualification for all those who become instructors in the common schools.

R. T. PECK,

School Commissioner.

SOLON, Dec. 28th, 1872.

DUTCHESS COUNTY — SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—In this, my last report, I beg leave to state that the schools in this district are in a promising condition, very many of them making great improvement in the grade of study and in the thoroughness of their work. The school buildings have been very much improved during the year. Several entirely new ones have been erected, admirably fitted for school purposes, and others are in contemplation. We held a teachers' institute at Poughkeepsie, which was well attended, but was not so fruitful in results as might seem to be warranted by the outlay of time and money. I deem some radical change in this matter necessary to preserve the unity of trustees and teachers with reference to institutes.

I am more than ever convinced that very much depends upon the commissioner to keep the general tone of the schools under his supervision good, and to preserve the faith of the people in the district schools. I beg leave to recall my suggestion of last year, that some measures be adopted whereby the taxation may be more completely and fairly adjusted, to the end that greater harmony may prevail. If not outside of my province, I would recommend your Department to institute some inquiry, with reference to the number not attending school who are of suitable age, as the schools, with their present capacity, might do double the work with but slight increase of expenditure.

I would like to commend again some of the high schools in this district, under private management, which have greatly contributed to improve the scholarship in the common schools, foremost among which is our Rhinebeck Institute.

Thanking the Department for its courtesy and kindness during my term of office, I subscribe myself

Yours, etc.,

ISAAO F. COLLINS,

School Commissioner.

RHINEBECK, N. Y., Dec. 31st, 1872.

ERIE COUNTY—THIRD DISTRICT.

HON. ABRAHAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—Please accept this report for the last preceding school year. The schools, as a whole, have been successful. Peace and harmony reign throughout the entire commissioner district. The prominent wants and needs of our schools are the same as stated in a preceding report: more interest in schools by the people, and a better grade of teachers. The lack of these forms the great obstacle to success. Though some advancement has been made, yet the field is left comparatively unimproved. Trustees hire teachers, set them at work, and then, seemingly, conclude their responsibility is done. The teacher, being entirely alone, without outside help save a call or two from the commissioner, struggles on to the middle of the term, perhaps, and finds the interest waning. Patrons complain, children are taken from school, and the result is at least a partial failure, which may be attributed to one or both of the causes previously stated.

I trust our Legislature will see that all public money is given to support our glorious school system, instead of fostering institutions that war against our schools in more ways than one. It has been truly said, "Why give aid to schools of academic grade in which tuition is not free, when the law provides for union schools in which tuition is free?"

The number of children, and the average daily attendance, are nearly the same as for the previous year. Libraries continue to go the down-hill course, and in this section, at least, have nearly reached the bottom. They are practically dead, and of no value to any one.

One new school-house has been built in district No. 12, of Collins. District No. 13, of Concord, will build another year, and then we shall have comfortable, and, in many districts, tasty houses, seated with improved seats and otherwise neatly furnished.

This closes my duties as school commissioner. For your uniform kindness ever manifested toward me, I give to you my sincere thanks.

Yours truly,

S. W. SOULE,
Commissioner.

COLLINS CENTRE, N. Y., Dec., 1872.

JEFFERSON COUNTY—SECOND DISTRICT.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—For statistics I would refer you to my abstract of trustees' reports.

Of the one hundred and seven school-houses in this district, about eighty are in comfortable condition for the health of the pupils. We have all kinds of school-houses, from very good to very bad ; three new houses have been put up during the past year. In several districts they are making arrangements to build new houses next season, and in some to thoroughly repair those they have. I have assurances that, in the future, the people will pay more attention to the wants and comfort of their children in these respects, than has been shown in the past.

In some districts the books in the libraries are well preserved, and are read more or less by children and parents ; in the majority of districts, however, they are a thing of the past, no interest whatever being taken in them. I think I am safe in saying that not one trustee in twenty has known the number of volumes in his school district library for the past ten years ; and the number given in trustees' reports is generally guess work. The one-trustee system is gradually gaining ground. The business of a district with one trustee is done better and much more promptly. There is one union free school (and there should be at least three more), also one academy located at Antwerp, both in a flourishing condition.

Teachers' classes are instructed in both schools, and much practical good to our common schools results from the moral and intellectual training there received. Teachers, generally, are principally deficient in practical teaching, application and general information. The majority are strictly confined to text-books. I have necessarily refused to license many.

Our institute was held this fall at the court-house in the city of Watertown. It commenced August 25th, and continued two weeks. The instruction was principally conducted by Prof. Cruttenden, assisted by Miss Flora T. Parsons. The attendance was not as large as in some previous years, yet the institute was a decided success.

As to normal and training schools, I hear no objection to increasing the number. All with whom I have conversed acknowledge their superiority over other schools, and feel grateful to the managers of our public educational interests that such means are placed within the reach of all who will qualify themselves for teachers.

Trustees' reports are very imperfect; their financial accounts are often poorly kept, even when they have account-books. Some, who in their own accounts make the entries Dr. and Cr. properly, when they come to enter them in the district books, confuse their receipts and payments. Would it not be advantageous for the Department to provide a trustees' account-book, with proper rulings answering to the separate specifications of the blanks for trustees' reports?

An increasing zeal is exhibited by most of the teachers. Few, however, are fully aroused to the great importance, utility and responsibilities of their work. Too many apparently teach for pay merely, rather than from love of their work, and an earnest desire to do the greatest amount of good in this field of intellectual and moral culture. Teachers, who will be in demand by the people, must seek to attain better qualifications and make teaching a profession:

Commissioners must also seek by example and precept to infuse this spirit into their teachers, be more thorough in their examinations, more decided in denying licenses to those of

The following are the items of this expenditure :

For teachers' wages.....	\$1,932,370 37
For school apparatus	152,603 36
For colored schools (all expenses).....	41,646 31
For school-houses and sites.....	607,808 24

For all other incidental expenses, viz. :

For fuel.....	\$123,225 14
For janitors' salaries.....	110,578 59
For officers' salaries.....	73,878 71
For other expenses.....	50,486 78
	<hr/>
	358,169 22
For corporate schools.....	103,519 75

Total.....	<u>\$3,196,117 25</u>
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The whole number of schools under the charge of the board of public instruction of this city, and superintended by the undersigned and six assistants, is two hundred and eighty-one, comprising forty-eight grammar schools for males, forty-four grammar schools for females, ninety-five primary schools, ten colored schools and departments, including the Saturday normal school for colored teachers, two other normal schools, including the normal college for females, thirty-one evening schools and fifty-one corporate schools.

The following table exhibits the number of pupils taught during the year in such class of schools, as compared with the preceding year :

	1872.	1871.
Male grammar schools.....	31,271	31,907
Female grammar schools.....	28,062	27,807
Primary schools.....	128,173	127,651
Colored schools.....	1,832	2,046
Evening schools.....	20,979	19,526
Corporate schools.....	23,418	21,699
Normal schools.....	2,145	2,015
	<hr/>	<hr/>
Total.....	235,880	232,651

By this it will be perceived that the number of pupils, reported as taught during the year 1872, is more than three thousand in excess of that reported the previous year, the largest part of this increase being in the corporate schools.

	Average attendance.		Number of teachers.	
	1872.	1871.	1872.	1871.
Male grammar schools.....	16,980	16,494	568	566
Female grammar schools.....	14,923	14,053	506	479
Primary schools.....	54,622	53,344	1,355	1,266
Colored schools.....	797	789	45	44
Evening schools.....	9,350	8,814	374	353
Corporate schools.....	8,257	7,691	165	163
Normal schools.....	1,446	1,301	23	23
Total.....	106,336	103,339	3,987	3,913

From this it will be seen that the average attendance of pupils in 1872 is nearly four thousand in excess of that reported last year.

Two new school edifices, in process of erection at the date of my last report, have been completed during the year, and the schools opened therein are now in successful operation. These buildings together are adequate for the accommodation of an attendance of about five thousand children, and the number at present in daily attendance is about 4,500.

The examination of the schools by the deputy superintendents of grammar and primary schools, during the year, has resulted in showing in many respects a decided improvement in the instruction given to the various classes, while the reputation of the schools for good discipline has been quite satisfactorily maintained.

Respectfully submitted,

HENRY KIDDLE,

City Superintendent.

NIAGARA COUNTY—CITY OF LOCKPORT.

Hon. ABRAM B. WEAVER,

State Superintendent of Public Instruction :

SIR.—In compliance with your request, I have now the honor to present to you a special report regarding the progress and condition of educational matters in this city, with such remarks as the subject has suggested. As the financial situation of our city schools has been already fully exhibited in my annual report, it appears unnecessary to enter particularly into further details on that head.

When I was appointed to the office of superintendent of public schools in this place, Lockport was an incorporated village. The principal school at that time, as now, was the union school, first opened for instruction in 1848. It is a substantial stone building, but, however, hardly large enough for the increasing wants of the city. There were, besides, two good modern brick school-houses, one containing four rooms, and capable of accommodating with comfort about two hundred and fifty children, although we have often been obliged to crowd in many more; the other containing two rooms, and accommodating, perhaps, one hundred and twenty. The other school-houses were gloomy, old-fashioned buildings, with poor accommodations for the pupils, and by no means equal in any respect to the requirements of the present day.

A few years ago the subject of building new school-houses began to be agitated in our board of education. Some time, however, as is generally the case, elapsed before action was resolved upon. At length, in the spring of 1868, it was determined to build, on a lot previously purchased by the board, a school-house in that part of the city called East Lockport. Two primary school districts and one secondary district were consolidated for that purpose, and the school-house was accordingly built. It is a substantial brick building, called the Clinton-street School, and contains seven spacious rooms, one of which is used as an assembly room. It was opened for

instruction in March, 1869. In the autumn of that year a piece of ground was purchased on High street, and a contract was entered into for the erection of another school-house. Winter intervening, the building was not completed until the following autumn. It is an edifice possessing about the same accommodations as the other, but it is of higher architectural pretensions, and the expense of erecting it was proportionably greater. Occupying a commanding site, it is an ornament not only to the neighborhood in which it is situated, but also to the city at large. About a year ago another handsome edifice was finished, named the Hawley-street School, which will accommodate about the same number of scholars as each of the other two.

The erection of these three school-houses has been attended with considerable expense to the city; but our citizens, I believe, consider the money as profitably expended; and Lockport may now boast of being as well provided with good primary school buildings as any city of the same size and means in the State.

I need hardly enlarge here upon the beneficial influence of comfortable and convenient school-rooms. On the plastic nature of children impressions are easily made; but when made, are often difficult to be effaced. If children fresh from home are placed in dark, crowded, and ill-arranged rooms, the feelings then excited may long associate the idea of school with that of gloom and discomfort. If, on the contrary, children on their first entrance into school find themselves seated in convenient and commodious apartments, with all the surroundings pleasant and agreeable, it is probable that the effect produced on their minds will be highly favorable, and will be manifested in a love for school, and their consequent improvement. The æsthetic principle in their nature will be fostered and strengthened; a taste for the elegant and beautiful will gradually be developed; and the place where they receive their first lessons in learning will be remembered not as a dreary prison-house, but will in after life be associated with bright and happy images on which memory may love to dwell.

During my superintendency the number of teachers employed in our public schools has increased from twenty-eight to forty. Their salaries have likewise been considerably increased, being nearly doubled in amount. Of the forty teachers employed, three only are males, the work of instruction being principally carried on by female teachers.

The increase in the number of scholars attending our public schools has been steady, and the average attendance will not compare unfavorably with that of other cities. But while this is the case, it must be acknowledged with regret that the attendance might and ought to be much larger. Many parents do not appear to appreciate sufficiently the vital importance of punctual and regular attendance on the part of their children. Many parents are in circumstances that seem, at least during a part of the year, to render the help of their children necessary to the subsistence and comfort of their families. Very few, I am happy to think, are at the present day totally indifferent to the education of their children. There is, however, a certain class of boys, here as elsewhere, over whom parents seem to lose control, who unfortunately prefer the license of the streets to the wholesome restraint of the school-room; and I regret that there does not exist some compulsory means to stop them in a career, which, if not checked, will inevitably lead to crime and infamy.

In the school system of this city the scholars pass by examination from the primary schools into the junior department of the union school. This may be called a grammar school, instruction being given in the branches usually taught in grammar schools. One principal and five assistant teachers are employed, and the scholars number upwards of three hundred. The instruction is thorough and efficient; the order and discipline are excellent, and the school is highly and deservedly popular. From the junior department the pupils pass once a year, by examination and certificate, into the senior or academic department. The course of study in this department is similar to that of our best academies, embracing the higher branches of English education, mathematics, the

Latin, Greek, French and German languages. It is provided with a good mineral and geological cabinet, philosophical apparatus and a library of about two hundred and seventy volumes. It is in a prosperous condition, and its reputation for scholarship and discipline is high in the city and county. A majority, indeed, of the teachers in our city schools have heretofore received their finishing education in this department. Ever since its institution it has also been noted as a nursery of teachers for Niagara county, and has, in this respect, proved of signal service to the cause of education in this section of the State.

During the past year there were only two of our teachers that held diplomas from normal schools in this State, and one of these was recently married and has left the profession of teaching. No one can entertain a higher opinion than I do of the utility of these schools, and of the training and qualifications of the teachers that they send forth into the field of education; but it would seem that their graduates generally look for and obtain positions where higher salaries are paid than in this city; and this remark will apply with still greater force to the district schools in the country. When teachers are better paid, and their situations become more stable and permanent, a greater number of normal school graduates will be found willing to take charge of district schools, and the results in the great work of education will be proportionably beneficial.

For more than five years, discipline in both departments of our union school has been maintained without recourse to corporal punishment. Appeals to the sense of duty and to feelings and principles of honor, and the promotion of emulation among the pupils, have hitherto been the agencies principally relied upon by our teachers, and have been found adequate to the end proposed in the good government of the school. The cases have been very few in which suspension or expulsion has been necessary. It has not yet been deemed expedient to prohibit corporal punishment in the primary schools; but as the best public sentiment is now pronouncing strongly

against physical coercion, and as teachers themselves are beginning to perceive that schools can be governed without resort to this degrading mode of punishment, it is hoped that ere long it may altogether be dispensed with. If teachers have the tact and ability to arouse and fix the attention of their scholars, and to preserve an interest in their daily work, there will be little need for the employment of such punishment in the maintenance of order and the enforcement of study; and teachers who, at the present day, would rely upon the rod as the chief instrument of discipline, have certainly mistaken their calling. A resort to such punishment, except in extreme cases, should, I think, be discountenanced and avoided.

We have been endeavoring of late to introduce to a greater extent into our schools the method of object teaching, and oral instruction in general. Much has been recently said in favor of this method of instruction, and some have thought that its friends have gone too fast and far in its advocacy. It cannot, however, be denied, that it is a powerful instrument in awakening and cultivating the perceptive faculties, and in training the young both to think and to express their thoughts with facility. It is, of course, necessary to proceed cautiously and intelligently in its employment. To use and not to abuse it requires skill, intelligence and information on the part of the teacher. In the hands of a weak, unskillful, or careless teacher, it may fail in producing the expected results, and may degenerate into an uninteresting round of descriptive adjectives and a useless repetition of set phrases.

Unless this kind of instruction is well arranged and carefully considered, a loss of valuable time may ensue. It is all-important in our primary schools, that the children shall be well and thoroughly trained to spell, read and write; that they should be made familiar with the principles and practice of arithmetic, and with the main facts relative to geography and the history of their own country. These elementary branches must not be neglected, and their acquisition should not be interfered with. They lie at the foundation of the educational structure; on them all future knowledge is to be

built; and oral instruction, to carry out its design profitably, must be so regulated as to assist, and not to hinder or embarrass the scholar in the mastery of these essential rudiments. I am satisfied that oral instruction can be so regulated, and may be so managed from almost the commencement of the child's attendance in school, as to be productive of important advantages, in furnishing the young mind with objects of thought, in encouraging inquiry, observation and reflection, and in so ordering and exercising the mental powers as to assure greater success in general study.

In the first stage of the school career, judicious oral instruction may thus be rendered eminently serviceable in awakening perception and inculcating morality and virtue; and as advance is made in knowledge, it will become still more decidedly useful in preparing the mind to receive truth, to retain it intelligently, and to grasp and acquire new information. It is a matter of regret to think how much time is virtually lost in mere reproduction of the words of the text-book; and how many children go out from school into the world without the development and cultivation of their faculties, which it is the true province of education to provide. The best system of teaching will always aim at a combination of oral instruction with that based upon the text-book, and at imparting such intellectual culture as will enable the diligent pupil to master any new subject that may be presented in the course of study. The permanence of free government depends on the knowledge and morality of the people. How important then it is that the instruction supplied by our schools should be such as will best accomplish the true ends of education, by preparing the pupils for an intelligent and virtuous exercise of their civil rights, and the performance of the duties that devolve upon them as citizens, in a pure and patriotic spirit.

Whatever system of instruction is adopted, much of its efficiency will, of course, depend upon the teachers to whom the work of carrying it out is entrusted. Teachers may be faithful, and may even labor hard in their vocation, and yet not meet with the success that they expect. Custom and

routine throw barriers around many teachers, which they find it difficult to surmount. To-day will see them do what they did yesterday, and they would be at a loss to assign any better reason for so doing than that they did it yesterday. One great use of teachers' institutes, teachers' associations, and of educational periodicals, is to help such teachers out of the dull and barren path of habit and routine, by unfolding to them their deficiencies, and pointing out appropriate remedies. It is with teachers as with scholars, though in a different sphere; they should be continually learning. The intellectual armor must be polished, or it will be in danger of rust. It ought to be the desire, as it is the duty, of teachers to qualify themselves for respectability in their profession; and it would be much better, both for themselves and their profession, if they cherished persistent aspirations after excellence. Teachers cannot become well informed and accomplished without sustained effort and constancy of purpose.

I have the satisfaction of being able to state that the teachers in the schools over which I have control appear to be actuated by the proper spirit, and moving in the right direction; that our young teachers seem desirous of qualifying themselves for the intelligent and successful discharge of their highly responsible duties; and that our schools are, upon the whole, in a prosperous condition, in a course of steady improvement, and in the enjoyment of the support and confidence of the community.

The union school district library of Lockport, originally formed by the consolidation of the several district libraries, now contains upward of 3,700 volumes, among which are many standard and valuable works. All possible pains is taken to keep it in good condition. It is extensively used, not only by the school children, but by the citizens at large, and may be considered a public benefit.

I remain, with much respect and consideration,

Your obedient servant,

JAMES FERGUSON,

LOCKPORT, Dec. 26, 1872.

City Superintendent.

ONONDAGA COUNTY—THIRD DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—In accordance with your request, I submit the following brief report.

The schools under my jurisdiction are, in the main, in good condition. I have endeavored, during the past year, to raise the standard of teachers' qualifications; and, of all those who attended the several examinations held by me, fifty-seven per cent passed the required examination, and received certificates, ranging as to time from six months to three years. I believe that in no way can a commissioner do more to improve the condition of the schools under his charge than by a careful examination as to the qualifications, ability, and moral character of those who seek the position of teacher; and there are now too many at the head of our common schools who, by insufficient education, inability to instruct, or lack of high moral sentiment, are robbing the children of the aid, discipline and example to which they are justly entitled. Of those teaching during the present winter term, more than three-fourths are females, there being a less number of male teachers now employed in this district than at any time before.

During the year just past, several school buildings have been thoroughly repaired; and there are now less than a dozen school-houses in this commissioner district but that are in excellent condition, and only three that are insufficient and uncomfortable. During my next term I intend that all these shall be improved, or new houses be erected instead.

Notwithstanding our admirable free-school system, there are still many children, both male and female, who, having illiterate parents or guardians that do not appreciate the benefits arising from even a common-school education, are but seldom seen in the schools. Such children should be com-

pelled to partake of the advantages which the property of the State is compelled to furnish.

Very respectfully yours,

PARKER S. CARR,

School Commissioner.

FAYETTEVILLE, December 28, 1872.

ONTARIO COUNTY—SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—In compliance with your request of the 15th ult., I cheerfully submit the following brief report of the condition and wants of the schools under my supervision.

It is a pleasure to me to be able to say to the Department, that here in the second commissioner district of Ontario county the good work of educating the rising generation is in a healthy and prosperous condition. In this, my third annual report, I am able, for the first time, to report a public school of good condition in each of the one hundred and nine school districts of this commissioner district. These districts have at present in their employ one hundred and eighteen different teachers. The people are becoming better acquainted with the free school law, partly by a study of the same, and partly by the good effect it has upon the schools of their respective districts. I find that the better the people are acquainted with the free school system, the more anxious they are to secure good and efficient teachers, that they may thereby increase the average daily attendance, and thus draw more money from the public fund. I recommend to all teachers, who may chance to read this report, that it is a good plan for teachers to vie with each other in endeavoring to secure a high per cent of daily attendance of their pupils. One of the great hindrances to thoroughness in our district schools, is irregularity of attendance. This can be somewhat overcome by the teachers, if they will give it their attention.

The improvements in school buildings are going on as fast as can be expected. There has been but one new school-house built the past year, but several have been thoroughly repaired, making them as good as new. The people are beginning to think that it is better and cheaper to build comfortable school-houses for the accommodation of their children, than to pay for fuel and doctors' bills. There are, aside from the one hundred and nine district schools in this commissioner district, three academies and one seminary, located at Canandaigua, Naples and East Bloomfield, all of which are first-class schools. If these schools continue for the next three years in the condition they are at present, I shall expect much good from them to the district schools. I find that the tendency of every good institution is to enhance the interests of all other good institutions.

I would call the attention of the Department to that portion of sec. 66, title 7, of the "Code," which gives the trustees power to assess each taxable inhabitant of a district on the property owned or possessed by him situated partly in his own district, and partly in an adjoining district. This has been and is the cause of much pecuniary embarrassment to several of my school districts. The inhabitants of a wealthy district purchase the territory of an adjoining poorer district, which joins their farms, thereby carrying the assessment of the weaker district into the stronger one, so that eventually the wealthy district will control so much of the real estate of its neighboring district that it will be impossible for the poor district to sustain a school. The following example is but one of several which I might cite: The assessed valuation of district No. 11, town of Richmond, is about \$98,000; that of an adjoining district, No. 10, of the same town, is \$21,212; much of the property that goes to swell the assessment of No. 11 lies within the boundaries of No. 10. If No. 10 could hold all the property lying within the boundaries of the district, it would support a much better school than it feels able to, under the present state of affairs. Each district should have the power

to tax all the real estate lying within its boundaries. I would suggest to the Department that the attention of the Legislature be called to this point.

I would next call the attention of the Department to the ten days' session of our institutes. Experience and observation suggest to me that this is not the most judicious way to spend time and money. There are but few of the teachers who lay their plans to attend the institute more than one week. A few come the first week, and not the second. A majority attend the second week only. It can be seen at once, that this makes very it unpleasant for the conductors of the institute. Most of our instructors have a two weeks' course which they wish to present to the members of an institute. They are obliged to give a hasty review at the beginning of the second week, for the benefit of those who attend only the second week. This has a tendency to discourage those who come for the entire session. This review is necessarily so hasty that it is of but little benefit to the new members of the institute, while the interruption detracts from the general interest of the exercises, and serves to discourage prompt attendance in the future.

I would suggest that our institutes be held semi-annually for five and one-half days, the Department to furnish one competent conductor, who shall have the general management of the institute. This conductor shall so arrange the programme for the entire session as to alternate with the commissioner or commissioners and some of the older teachers, in the exercises of each day. Teachers are not worked enough at our institutes. Many of them have good ideas in regard to teaching, and if they were assigned certain topics at certain times each day, they would prepare themselves in such a way as to do justice to the subject and credit to themselves. I think that such a course would be attended with less expense to the State, and be more beneficial to the teachers than the present system.

In conclusion, allow me to express my heartfelt thanks to

the Superintendent for his prompt and satisfactory answers to all questions submitted for his consideration.

Respectfully your obedient servant,

R. B. SIMMONS,

School Commissioner.

BRISTOL, *December 31, 1872.*

QUEENS COUNTY — LONG ISLAND CITY.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—Of the present condition and wants of our public schools I have the honor to submit the following report :

By an examination of the financial statements already forwarded to the State Department of Public Instruction, it will be seen that the whole amount of money paid for public instruction in this city for the year ending September 30, 1871, was \$31,930.46, while for the year ending September 30, 1872, there was paid for the same purpose but \$28,158.45. Of this latter amount \$937.50 was for salaries due the previous year, so that properly the expenses for the former year were \$32,867.96, and those of the latter but \$27,220.95. Notwithstanding the reduction in expense, of our schools, I am happy to state the salaries of teachers have been increased in the aggregate by \$1,200. The balance to the credit of the board of education, for the support of public instruction, September 30, 1871, was \$6,707.35, while the reported balances in the hands of the several boards of school trustees, September 30, 1870, the year before the schools were united under one general management, amounted to \$12,426.55.

In 1871, the total assessments for school purposes in the several districts now included within the limits of Long Island City amounted to \$23,000; in 1872, the assessments for the same purposes amounted to only \$19,494.77. The State apportionment for these two years was \$5,713.35 and \$6,342.51, respectively. From these figures it will be seen

that from September 30, 1870, to January 1, 1872, the three schools within the present limits of Long Island City were entitled to \$41,139.90, while one year later, as the schools were coming under their present management, the board of education had for the corresponding fifteen months at its disposal but \$32,544.63. When we take into the account an increase last year of eighty in our average attendance, and when further, we report a still greater increase than this in our present attendance over that for the school year just ended, the financial condition for the support of the schools already established, is that of not only comparative, but absolute embarrassment.

Two wards of the city, the third and fifth, represented respectively by 651 and 574 children of legal school age, more than one-fourth of the entire school population of the city, and together paying for the support of public schools \$7,340.24, or more than three-eighths of the entire school tax, are yet without such schools. The requirements of these wards for the establishment of schools therein, and the equally urgent requirements of all our grammar schools for an upward relief in the establishment of a high school, must be met before our system is general in its application or complete in its grade.

The adoption of a uniform list of text-books, besides being a matter of economy to the tax-payer, has simplified the work of properly grading the classes of the several schools. In classification, in discipline, in system, and methods of instruction, we believe our schools are generally improving. Also the improvement in the average and regularity of attendance is very marked.

We are pleased with the general earnestness and good will with which our teachers enter upon their class-work; we can but regret, however, that the limited qualifications of any, as shown by their examinations, compel us to issue certificates of a grade lower than our highest. To quote another, we are of the opinion, that "a low grade certificate means, though it does not so state, that its holder is not possessed of the required literary qualifications to recommend him or her to a position as teacher in our public schools." As compared with the exami-

nation of classes made last February, the results of the second semi-annual examination made in June, show most gratifying evidences of thoroughness in instruction and class-drill upon the part of the teachers, and attention and application on the part of the pupils.

In concluding this report, we can but express our satisfaction at the harmonious workings of all the details of this department; to this state of good feeling, seconded by the faithful efforts of our teachers, are we indebted for whatever is excellent in the character and extent of the work which is now being done in our public schools.

Respectfully submitted,

ALANSON PALMER,
Superintendent.

LONG ISLAND CITY, Dec. 31, 1872.

RICHMOND COUNTY.

HON. ABRAM B. WEAVER,*

Superintendent of Public Instruction :

SIR.—There is not much that is new to report in this district. The schools pursue the even tenor of their way, with slight advances, on the whole, in the right direction. There has been especially a noticeable increase in the attendance at the annual school meetings, indicating an increased interest in the schools, for which I have been earnestly laboring. The result is seen in the addition of over \$3,000 to the salaries of the teachers, and more than \$20,000 beyond the expenditure of last year for schools and apparatus.

If it were possible for the commissioner to attend all the district meetings, I am firmly persuaded that a decided impulse could be given everywhere to the prosperity of the schools, not otherwise to be obtained. In two instances, where an adjourned or a special meeting was held, at my request, to allow me to be present, difficulties were removed and supplies

were voted in a manner which equally surprised and gratified the inhabitants. I desire again to record my conviction that the inhabitants of the districts are more liberal in their views as to school matters than trustees generally are willing to admit. In no case has an increase of salary for the teacher, or a fair appropriation for the school, been refused, where it has been earnestly recommended by the trustees.

Of course, as all the district meetings are held on the same evening, it is impossible to reach them in the way indicated, and equally impossible to secure a full attendance at any special meeting, and above all, in those districts where liberal measures are most to be desired.

I have had to form a new district, by dividing No. 2, Southfield, much against my wishes, as concentration is everywhere more desirable, affording as it does the opportunity of grading the scholars. There were local reasons, however, in this particular case, rendering the division inevitable; so that No. 4, Southfield, is now added to our districts.

In No. 3, Castleton, a noble new school-house has been finished, at a cost of \$30,000, and is now occupied. It affords an instructive illustration of what one man can accomplish, when he is intelligent, liberal and earnest in his efforts to promote the cause of education. Two years ago that district was very poorly provided with school accommodations, when a gentleman, holding a prominent position in the press of New York, set himself to work to remedy the deficiency. He imbued some of the other inhabitants with his own spirit, and with such effect that the new building is the result, a model of comfort and elegance. As a contrast, in No. 6, Northfield, where more room is needed, and where those, who would have to furnish by far the greatest proportion of the funds, are willing to build a new school-house, one man, drumming up the voters of the poorer and least intelligent class, succeeded in thwarting, for the second time, a plan which would have given the district an ample and beautiful edifice.

District No. 2, Castleton, has built an addition to the school-

house, costing \$5,000, and furnishing accommodations for four additional teachers, two being already employed. This district is, in all respects, a model. The trustees are educated, liberal men, always ready to act in the interest of the school. As one instance of their judicious care, they direct their teachers to go, in a body, one day in every month, to visit some school in the city or elsewhere celebrated for its excellence. The two gentlemen at the head of the school, who have no superiors anywhere, enter heartily into the plan, and carry their corps of young teachers here and there, wherever a model school is to be found. The result is admirable. The ambition of the teachers is stimulated. They see the best methods of instruction in the best schools. In consequence their own school rises to the level of the best to be found anywhere.

This year the number of children of school age is 11,406, as against 11,490 last year. The number in attendance during some part of the school year is 5,770, compared with 5,886 last year; but although these figures indicate a falling off of 116 in attendance, the average daily attendance has slightly exceeded that of last year. Still, an average daily attendance of only 2,675 out of the whole number of 11,406, shows a sad neglect, on the part of parents, of what is due to their children. There are 884 children in attendance in private schools.

The expenditures, during the past year, show a gratifying advance in the right direction :

	1871.	1872.
Teachers' wages.....	\$44,478	\$47,175
For school-houses.....	23,351	41,158
Total expenses.....	87,900	107,000

Our teachers' institute was highly successful and gratifying, although we were deprived of the services of a conductor. The gentleman appointed by the Department telegraphed to us, after the institute was organized and in session, that illness prevented him from coming. In this emergency, some of the teachers, at my request, took charge of the exercises, and with

such success that the universal opinion of those in attendance was, that, in point of real, practical school work, in the interest maintained and the benefit received, this institute was in no degree behind any previous one.

Respectfully submitted,

JAMES BROWNLEE,

School Commissioner.

PORT RICHMOND, Dec. 1872.

ST. LAWRENCE COUNTY—SECOND DISTRICT.

HON. ABRAHAM B. WEAVER,

Superintendent of Public Instruction.

SIR.—The schools in this district, during the past year, have given increasing evidence of improvement in character. The management, discipline, system and method of instruction seem to be constantly improving.

The greatest evil, I have observed in the general management of our schools, is the hap-hazard way of conducting classes. Teachers do not seem to know just what they want to accomplish nor just how they expect to accomplish it; instead of presenting the subject analytically, each point in its proper order, until the climax comprehending the whole principle under discussion is reached, the matter is taken up indifferently, without a well defined plan or method. The result is the inquisitive few may study out and master the principle, but the indifferent many pass on no wiser than before.

In correcting this evil and in impressing upon teachers the conviction that systematic labor and success are inseparable, I think the normal school in this county is exercising a beneficent influence; and yet the only benefit the common schools derive from the normal is through the teaching of undergraduates. It is a notorious fact, that the meager wages of our common schools offer no inducement to the normal graduate; they take their diplomas and accept a position in some kindred institution, academy or graded school, and thus the primary object in

establishing normal schools is, to a considerable extent, frustrated.

To correct this and bring the normal and common schools into close and practical relations, should engage the earnest attention of all zealous educators. This subject was ably discussed by Dr. McVicar, principal of Potsdam normal school, at the last commissioners' association, and a practical step has been taken towards effecting the above desideratum, by organizing in the normal school at Potsdam a special training class consisting of those who purposed teaching the ensuing winter. The class consisted of between eighty and ninety members, and was instructed during ten weeks in the following branches: arithmetic, grammar, geography, reading, penmanship and school economy. Principles and methods of presenting them were made the objective point, and the final examination, conducted in the presence of the commissioners of this county, evinced the fact that the discipline, the class had received, was an advance towards accomplishing what the welfare of our schools and the wants of our teachers imperatively demand. The class was designed to do, on an enlarged scale, the work usually done at institutes, and therefore the holding of an institute in this county was excused. The task of instructing this class was voluntarily assumed by the faculty without additional compensation. The success that has already attended their efforts, and the success I believe to be in store for them, will, I trust, guarantee the only remuneration desired—the enhancement of the cause of education.

It seems to me that the laws regulating the use of text-books are very much at fault. Reposing, in district trustees, the power of determining what books shall be used, many of whom are unlettered and still more indifferent, is in effect leaving the matter open to the competition of publishing houses who unscrupulously make their interest paramount to the real educational interests of the community. Imagine a school of twenty or twenty-five scholars using a series consisting of five readers and a primer. Thus, in order to teach reading pro-

perly, twenty scholars are classified in six grades. In my judgment this is absurd; and yet it is the rule and not the exception. Under the present system, I see no hope of establishing a uniformity of text-books, even in the same school. I think the best educational interests would be consulted, by reposing this power in the commissioner of each county.

Respectfully yours,

A. BARTON HEPBURN.

COLTON, Dec. 14th, 1872.

ST. LAWRENCE COUNTY—THIRD DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—Upon the completion of the work of another year and of my third term of service, a review of the results gives me much satisfaction, and encouragement to enter with renewed zeal upon the labor of another term.

An examination of the abstracts of trustees' reports for this period will show a material improvement in nearly every item indicating the general condition of the schools of this district. This will be especially seen in both the average and total attendance, the length of school terms, and the amount paid for teachers' wages. The amount expended for school purposes, excluding the amount paid for building school-houses, is now double the amount expended for all school purposes nine years ago.

At that time the condition of school-houses generally was poor in the extreme. Now a large proportion of districts are supplied with neat and commodious school buildings. Then there was but a single school that could lay any claim to gradation. Now we have two thoroughly organized and prosperous union schools, and several graded schools of two and three departments. But the most marked progress is the advance in public sentiment. The impulse imparted by the Free School Act is universally acknowledged. The advan-

tages of graded over ungraded schools is understood. There is a demand for more thorough work on the part of school officers and teachers.

The establishment of the state normal school at Potsdam has contributed largely to the accomplishment of these results. Several graduates of this school are employed in this commissioner district. The schools are largely supplied with teachers from the undergraduates. Although few of them have taken the course of instruction in methods of presenting subjects, or in organization and discipline, yet they catch the spirit of the institution, go to their work with a more enlightened view of their calling, have a more definite plan of work, and generally succeed well.

One of the most urgent necessities of the times is an adequate number of thoroughly trained teachers, sufficient to fill all the schools. This, under existing circumstances, cannot be secured. It is indeed strange, that while in all other professions schools for professional training are an admitted necessity, for which high schools and colleges only afford the requisite preparation, it has not generally been regarded of equal importance to thus provide for the training of teachers. The inconsistency of this view needs only to be stated to be seen, and the necessity for an increased number of professional schools to give suitable training to teachers requires no argument. The State has long recognized the necessity for this training. For years appropriations have been annually made to eighty or ninety academies in the State for instructing teachers' classes. For nearly a quarter of a century, teachers' institutes have been supported in all the counties of the State. The normal school system is a recognition of this necessity.

The results in the first class of schools render a continuation of this appropriation of doubtful propriety. Persons to fill these classes are rarely selected for their fitness, but from favoritism, or to secure a tuition bill. The time devoted to these classes does not exceed one or two hours per day. The character of instruction is sadly defective.

Teachers' institutes have done a noble work, and were a

necessity. But the time devoted to each annual session is so short, and the number in attendance so large, that with the increased number of normal schools, it may with propriety be deemed expedient, in some cases, to do away with them, and provide special training classes for teachers in the normal schools. In this connection I desire to record my unqualified approval of the views expressed in a paper read by Dr. McVicar before the Association of School Commissioners and City Superintendents, at Rochester, in May.

In July last the commissioners of this county were invited to meet the faculty and local board of the state normal school at Potsdam, to consider the expediency of organizing a special training class for persons intending to teach one or more terms, in the public schools of the State, during the year commencing October 1, 1872. After a full discussion and consultation, it was decided, with the approval of the State Superintendent of Public Instruction, to organize such a class, for ten weeks' instruction, at the opening of the present term. The time required in perfecting the arrangements, arranging a course of study, etc., left less than two weeks, previous to the opening of the term, for giving public notice. Although the time of notice was thus limited, a class of sixty was formed. As was anticipated many difficulties were encountered. It was determined to make the standard of admission to the class low. Of necessity the class was mixed. Some did not fully understand the nature and design of the instruction; others were not properly prepared to do the work. The instructors found difficulty in determining the wants of the class, and of adapting instruction to their necessities. Notwithstanding these and other embarrassments, the effort was a decided success. The fifth week of the course I visited the class, examined carefully the methods of instruction pursued, and the progress made. In connection with Commissioner Hepburn, I was present at the examination at the close of the term. It occupied two days, was thorough and critical. The class acquitted themselves with credit. The ability displayed in the presentation of subjects was especially marked.

An abstract of points discussed in several subjects taught is herewith submitted.

**ABSTRACT OF POINTS DISCUSSED IN SPECIAL TRAINING CLASS UNDER THE
HEAD OF GRAMMAR.**

What is Required of a Teacher.

- I. A knowledge of the subject to be taught (which pupils belonging to this class are supposed to have).
- II. A knowledge of the principles of teaching as based on the human mind.
 1. Design of human mind. (1.) Growth. (2.) Use.
 2. Needs of; food—knowledge.
 3. Avenues of knowledge—senses.
 4. Use the mind makes of the knowledge it receives through the senses—perceives, remembers, compares, reasons and judges. The faculties to be cultivated and strengthened for use.
 5. They are cultivated and strengthened by exercise.

Hence,

- (1.) Ideas should precede words.
- (2.) Objects should precede names.
- (3.) Knowledge should precede definitions.
- (4.) Instruction should proceed from the
- (4.) Known to the unknown,
- (5.) Particulars to generals,
- (6.) Concrete to abstract,
- (7.) Simple to complex,
- (8.) Facts to principles.

6. Principles deduced.

III. Knowledge of Arrangement.

1. Objective Course.

- (1.) Object of—growth and development.
- (2.) Def. {
 - Objective—begins with objects.
 - Primary—first in order.
 - Synthetic—builds up.
 - Inductive—leads to laws or principles.
- (3.) Materials used—facts, objects.
- (4.) Mental operation—comparison.
- (5.) Result—definitions, principles, rules, laws—define.

2. Analytic Course.

- (1.) Object of—growth of mind—use of knowledge.
- (2.) Def. {
 - Subjective—begins with the subject.
 - Advanced—second in order.
 - Analytic—takes apart.
 - Deductive—leads from principles (application).
- (3.) Materials used—subject to be considered.

(4.) Mental operation—comparison (differences).

(5.) Result—Logical arrangement of scientific classification.

Applying these principles in considering the subject of Language, we have two courses, Synthetic and Analytic; the first to be used in *gaining* knowledge, the second in *arranging* and *applying*. The first course is not designed to be used in primary and junior grades, the second in the senior, etc., but after gaining a knowledge of the *noun* by the objective method—that is by taking sentences containing nouns, comparing and examining them, learning the class, uses, properties, relations and inflections; then by the Analytic method *arrange* the knowledge gained in the best form to be retained, recited, used or applied. Then take the *adj.* in same manner, etc., with the other "Parts of Speech," the objective work always preceding the subjective. "*First catch the rabbit, then cook him.*"

The work in Grammar we divide into two courses, Primary and Advanced: Primary, in which the teacher presents the subject objectively; when the subject is mastered by the pupil, then arranged analytically, for recitation and use, under the direction of the teacher.

Advanced, in which the pupil may have sufficient mental strength to gain the knowledge of the subject from the text-books without the aid of the teacher, and may then be arranged and applied under his direction. If the pupil is not able to do this, however, the kind of work in the Advanced will be substantially the same as in the Primary or First course.

Primary Course.	First Step.	<ol style="list-style-type: none"> 1. Sentence (unit of language). 2. Noun. 3. Adjective. 4. Verb. 5. Adverb. 6. Preposition. 7. Conjunction. 8. Interjection. 	<ol style="list-style-type: none"> 1. Def. 2. Kinds, ac. to use. 3. Parts—Sub. and Pred.
	Second Step.	<ol style="list-style-type: none"> 1. Personal Pronoun. 2. Nouns. 3. Adjectives. 4. Verbs. 5. Adverbs. 6. Preposition. 7. Conjunctions. 8. Interjections. 	<p>Giving (1) <i>definition</i>, and (2) <i>uses</i> of each in sentences (simple).</p> <p>Reviewing def. and uses, taking classes, properties, relations, inflections and rules.</p>

The whole course examined, discussing definitions, arrangement (arranged in the order of dependence), etc., etc. Specimen lessons given.

1. ANALYTICAL ARRANGEMENT OF SUBJECTS PRESENTED IN THE FIRST COURSE.

Advanced Course.	2. Analysis of Sentences.	1. Def.	1. Ac. to use.	1. Declarative. 2. Interrog. 3. Imp. 4. Exclam.	1. Def.	1. Log. Sub. 2. Log. Pred.	
		2. Classification of.	Note. Proposition. 2. Ac. to No. of Prop.	1. Simple.	2. Parts.	1. Def.	
			1. Members.	1. Similar.	3. Elements.	1. Ac. to Rank.	1 2 3
			2. Propositions.	2. Dissimilar.	1. Prin. Leading. 2. Subor. Clause.	2. Ac. to Modifiers.	1 2 3
			3. Connectives.	1. Def.		3. Ac. to Office.	1 2 3
			4. Classes.	2. Classes.	1. Co-ordinate—Conjunctions. 2. Subor. Conjunctions. 3. Conjunc. Adv.	4. Ac. to Form.	1 2 3
				1. Compound—A sentence consisting of two or more members connected by co-ordinate connectives is, etc.			
				2. Complex—A sentence consisting of dissimilar propositions connected by subordinate connectives is, etc.			

Specimen Lessons Given.

IV. Knowledge in regard to the *presentation* of a subject. Method.

1. Different methods of presenting a subject.

- (a.) Lecturing method.
- (b.) Pupils memorizing from books.
- (c.) Catechetical questioning.
- (d.) Questioning to develop idea of the subject—objective teaching.

Discussed advantages and disadvantages of each; which should be rejected, which preferred, and for what reasons.

2. *Work of teachers* in *presenting* a subject objectively. Questioning.

3. Order to be observed in obj. presentation.

- (a.) Present the thing or object from which his conclusion is to be deduced; leading the child, by questioning, to *perceive* and *state* the truth to be learned, keeping the object before him until the idea is familiar.
- (b.) Pronounce correctly and distinctly the term to be given, and require individual and simultaneous recitation until familiar.
- (c.) Children spell, teacher write on board the matter obtained, and children reciting until they can repeat without hesitating.
- (d.) Thorough review and testing—summary.
- (e.) Reproduction—oral and written.
- (f.) Application—thorough drill.

4. Rules for questioning.

- (1.) Questions should not include the idea to be obtained, either by using word or words of answer, or by giving idea in other words.
- (2.) Questions must be to the point, (3) clear, concise, and (4) adapted to the capacity of the children.
- (5.) In a series, questions should be logical or in the order of dependence, based on previous answer and exhaustive.
- (6.) Do not indicate answer by inflection of voice, emphasis, or expression of countenance.
- (7.) Do not ask questions which can be answered by *yes* or *no*.

Specimen Lessons Given.

V. Knowledge of work following presentation.

1. Topical recitation—how arranged, how conducted.
2. Test questioning—how conducted.
3. Application, parsing, analyzing, applying or using knowledge obtained.

Specimen Lessons Given.

VI. Knowledge of use of books.

WORK OF SPECIAL TRAINING CLASS IN COMPOSITION.

I.	Punctuation.	I. Def.		
		II. Rules for	<ol style="list-style-type: none"> 1. Comma. 2. Semicolon. 3. Colon. 4. Period. 	
II.	Letter-writing.	Points considered.	I. Letter itself.	<ol style="list-style-type: none"> 1. Heading. { 1. Place. { Position. 2. Introductory Address. { 1. Style. 2. Position. 3. Body of Letter. 3. Closing. { Complimentary Exp. Signature.
			II. Folding.	
			III. Superscription.	
			IV. Stamping.	
III.	Sentences considered Rhetorically.	Rules for Kinds.	<ol style="list-style-type: none"> 1. Periodic. 2. Loose. 3. Balanced. 4. Long and Short. 	Criticism of Sentences.
			<ol style="list-style-type: none"> 1. Clearness. 2. Emphasis. 3. Unity. 4. Strength. 5. Harmony. 	

IV. Practical work in Letter-writing and Writing of Compositions on various subjects.

ABSTRACT OF POINTS DISCUSSED IN SPECIAL TRAINING CLASS UNDER
THE HEAD OF GEOGRAPHY.

I.

Objects of State in founding Public Schools.

1. Culture, highest development of individual.
2. To give to masses rudiments of useful knowledge.
 - A. *Teachers' work*, as appointed means of securing those objects, should be as *definite* as the objects.
 - B. *Definiteness* in work, as involving *purpose*.
 - C. *Purpose* in work, as involving *knowledge*; first, of *materials to be used*; second, *manner of using materials*, or *method*.
 - D. *Materials*. 1. *Being*—Phys. Mental, Moral, etc.
2. *Truth*—Phys. Mental, Moral, etc.
 - E. *Method*. *Mode of bringing the BEING and TRUTH in contact*. True method must consult both the being and the truth; in so doing, certain unvarying, universal *principles* underlying method, are discovered.
 - F. *Principles*.

I. As regards the child.

1. Child begins with senses.
2. Child discovers for himself.
3. Child deals with individual (unit of subject) analytically.
4. Child builds up whole subject (synthetically).

II. As regards the teacher.

1. Teacher should *analyze truth* (subject-matter).
2. Teacher should *find elements—present roots*.
3. Teacher should present *one thing at a time*.
4. Teacher should be *thorough*.
5. Teacher should observe *order* of nature.
6. Teacher should proceed from simple to difficult—known to unknown—concrete to abstract—individual to general.

II.

Principles stated above applied to Geography.

The class concluded that the fundamental ideas of Geography are *position, form, size*.

Exercises on Position, Form, Size.

1. Various exercises on *school-room, building, grounds, children's homes, and neighborhood where children live* (which are specially intended to induce quick, accurate perception). Children are taught how to represent (draw) the same.

2. *a.* Children study in detail their own *town*, constructing map of the same.
- b.* Study *county*, constructing map.
- c.* Work introductory to continents, on the following points:
Shape of earth—Surface—coast forms of land and water—
elevations—inland waters—poles—equator—hemisphere,
etc.

III.

1. *Order of Topics in study of Continent* given in detail, with reasons for order ; also, illustration of each.
2. *Order and kinds of class-work* on each point. See "Forms A" and "B."

IV.

General discussion and practical suggestions with regard to—*Exercises preparatory to recitation—kinds—value.—Objects and Modes of Recitation.—What constitutes perfect recitation.—Objects of study.—Tabular views and analyses ; value, when used, how used ?—Means of impressing on memory FORMS of countries, continents, surface, etc.—Means of getting children to think of realities instead of the representation.—Reviews and Examinations, value of, modes of, and value of each mode.—Apparatus.—Difficulties in map-drawing.—Plan of taking up various topics in the study of the continent.*

FORM A.—ORDER OF TOPICS IN STUDY OF THE CONTINENTS.

I. Structure or Mechanism	1. Position	<ul style="list-style-type: none"> 1. Relative. { 1. Continent in regard to other bodies. 2. Absolute. { 2. Other bodies as related to continent—<i>boundaries</i>.
	2. Form	<ul style="list-style-type: none"> 1. Approximate or fundamental form.... { 1. Principal coast lines. 2. Coast lines in detail. { 2. Fundamental construction. 3. Size
	3. Size	<ul style="list-style-type: none"> 1. Projections... { 1. Peninsulas. 2. Capes. 3. Gulfs and bays. 4. Seas ... { 1. Border. 5. Channels, straits and sounds. 6. Mouths of rivers.
	4. Surface	<ul style="list-style-type: none"> 1. Land..... { 1. Relative. 2. Absolute—area in square miles.
		<ul style="list-style-type: none"> 1. Plateau or table-land..... { 1. Position on continent. 2. Form. 3. Size. { 1. Extent. 4. Elevation. { 1. Comparative. 5. Description of structure. { 2. Real.
		<ul style="list-style-type: none"> 1. Highland ... { 1. Systems... { Ranges, 1-4 as above. 2. Mountains { 2. Ranges, 1-4. 3. Peaks, 1-4. 4. Groups, 1-4. 5. Volcanoes, 1-4. 6. Hills, 1-4.
		<ul style="list-style-type: none"> 3. Slopes and drainage. 1. Valleys . { 1. High, 1-4. 2. Low, 1-4. 3. Plains . { 1. High, 1-4. 2. Low, 1-4. 3. Slopes and drainage. 1. Main stream. 2. Tributaries. { 1. Main. 3. Single lakes.
		<ul style="list-style-type: none"> 1. Primary streams... { 1. Main. 2. Secondary streams { 2. Tributaries, 1-3. 3. Single lakes.

FORM A.—(Continued).

II. Climate	1. Temperature { 1. Causes of difference. 2. Effects of difference. 2. Winds { 1. Direction. 2. Character. 3. Moisture. { 8. Effects. 4. Seasons.
1. Vegetation 2. Animals 3. Races	1. Of sections, structural, political or zones, in detail. { 1. Kinds. 2. Of whole or general character for entire continent. { 2. Character. 1. Of sections (as above). 2. Of whole. 1. By what nationalities represented. 2. Where represented on continent.
III. Life	1. Position { 1. Relative, 1-3 boundaries. 2. Absolute. 2. Form { 1. Approximate 2. Boundary lines in detail. 3. Size { 1. Relative. 2. Absolute—extent and area in square miles. 4. Resources or natural advantages { 1. Arising from geog. position, form and size. 2. Arising from diversity of land surface. 3. Arising from character of land surface. 4. Arising from amount of water surface. 5. Arising from character of water surface. 6. Arising from climate. 7. Arising from amount and character of vegetation. 8. Arising from amount and character of animals. 9. Arising from characteristics of people. 5. Occupations. { Excess—exports. 6. Productions .. { Deficiency—imports. 7. Cities { 1. Principal. 2. Capital. 8. General facts.. { Characteristics. Government. History.

SUBJECTS IN ARITHMETIC CONSIDERED IN SPECIAL TRAINING CLASS.

Notation, Numeration, Addition, Subtraction, Multiplication and Division.
 Properties of Numbers.
 Greatest Common Divisor.
 Least Common Multiple.
 Fractions, Common and Decimal.
 Longitude and Time.
 Ratio and Proportion.
 Percentage.
 Stocks, Commission, etc.
 Profit and Loss.
 Life Insurance, Insurance, Taxes.
 Interest, Banking.
 Application of Per Cent.
 Discount.
 Exchange.
 Partnership.
 Alligation.
 Square Root.

**ABSTRACT OF POINTS DISCUSSED IN SPECIAL TRAINING CLASS, UNDER THE
 HEAD OF SCHOOL ECONOMY.**

I. Natural qualifications of teachers for school government.

1. Magnetism, power of impressing others, or personal influence.
 - (a.) Source of such power.
 - (b.) Conditions which control its exercise in the school-room.
2. Ability to discriminate character.
 - (a.) By noticing acts. (1.) As to their origin, or cause which gave rise to them. (2.) As to their direction, or channel in which they flow. (3.) As to the end or purpose to be served by them.
 - (b.) By noticing personal appearance. (1.) General features of face and head. (2.) Peculiarities of body, including gestures, dress, etc.
3. Sympathy for others.
4. Amiable temper.
5. Easy manner.

II. Acquired qualifications of teachers for school government.

1. A knowledge of the elements which enter into good government.
2. A knowledge of the forces at work in society in forming character.
3. The habit of noticing the forces at work in the pupil, and the tendencies to which they lead.
4. Self-possession, as regards temper, manner and execution.
5. An accommodating spirit.

III. The course which should be pursued by the teacher in the school-room.

1. In regard to personal appearance.
 - (a.) Positions of body; (1) natural; (2) affected.
 - (b.) Peculiar habits and treatment of the body.
 - (c.) Dress, (1) called for by the position occupied; (2) adapted to work.
2. Dispositions manifested.
 - (a.) Decided, but not harsh and austere.
 - (b.) Pleasant, yet not light and frivolous.
 - (c.) Even, yet not monotonous.
 - (d.) Patient and gentle.
 - (e.) Active and energetic.
3. Discriminations made.
 - (a.) In regard to what ought to be overlooked in the conduct of the pupil.
 - (b.) In regard to what ought to be censured in the conduct of pupils.
 - (c.) In regard to the peculiarities of pupils.
 - (d.) In regard to when, where and how censure and punishment should be inflicted

IV. Organization of a school.

1. Temporary organization.
 - (a.) Classification; (1) examinations; (2) distribution of pupils in classes.
 - (b.) Programme; (1) opening exercises; (2) time for recitation; (3) time for study; (4) recesses; (5) general exercise; (6) time for business.
 - (c.) Seating; (1) by classes; (2) by age; (3) by choice; (4) by conduct.

V. Regulations for the government of a school.

1. In regard to privileges.
 - (a.) Should be in accordance with acknowledged principles of right.
 - (b.) Should be such as can be given to each pupil under like circumstances.
 - (c.) Should be such as will promote the objects for which the pupil is in school.
2. Requirements.
 - (a.) Should be such as will do no violence to any part of the pupil's nature.
 - (b.) Should be simple, definite and as few as possible.
 - (c.) Should be such as will promote the objects for which the pupil is in school.
 - (d.) Should be such as can in every case be enforced without doing violence to the rights of the pupil.

- (c.) Should not be announced until demanded by something in the order of the school-room.

3. Restrictions.

- (a.) Should be such as necessarily grow out of the relation of the pupils to each other and to their teacher.
- (b.) Should be such as will assist the pupil in the power of self-government.
- (c.) Should be such as will do no violence to any part of the pupil's nature.

VI. Appliances for the government of a school.

1. Time element.

- (a.) Proper division of.
- (b.) Promptness in regard to.
- (c.) Proper use of, in cases of discipline.

2. Place element.

- (a.) Position of teacher in school-room.
- (b.) Seating of pupils.
- (c.) Condition of desks, floor, etc.
- (d.) Ornamentation of school-room.
- (e.) Plan and use of play-ground.

3. Exercises.

- (a.) Opening of school, music, recitations, reading of Scripture, etc.
- (b.) Music at intervals during the day.
- (c.) Physical exercises.

4. Report by pupils.

- (a.) Special, (1) daily, (2) at fixed intervals.
- (b.) General, (1) by classes, (2) by whole school.

5. Standing, kept by teacher.

TEST QUESTIONS IN GRAMMAR—SPECIAL TRAINING CLASS.

1. Name and define all kinds of pronouns. State in what respects they are alike and in what different.
2. State in which course and in which step pronouns should be considered ; also, what should be taught first in regard to them, and when kinds of pronouns should be given. State reasons in each case.
3. Mention the characteristics of an Objective or Synthetic course.
4. Mention the characteristics of an Advanced or Analytic course.
5. Compare the Analytic and Synthetic courses.
6. State in order the work of the second step, with reasons.
7. State the work of the first step Synthetic course, with reasons.
8. State the reasons for dividing the work into steps.
9. How does the order of presenting the subject—verb—compare with the order you would require in a topical recitation ? Give reasons.
10. Give the order for a topical recitation of the verb.

11. State the difference between a verb and a verbal word. Mention the classes of verbal words. State in what part of the work they should be considered, with reasons.

12. How much of etymology and syntax should be taught objectively? Reasons.

13. In which course, in what manner, and to what extent should books be used in teaching grammar?

14. State the advantages, if any, of an objective course in grammar.

15. Under what circumstances, if ever, would you depart from the arranged course in your text-books?

16. How would you answer this objection "That those who made the grammar knew more about the subject than we do, consequently we are *marring* instead of *improving* by *any changes* we may make?"

17. Mention the different kinds of work which should follow the *presentation* of a subject. State the object of this work.

18. How many, and which of the terms, Etymology, Syntax and Prosody should be given at the beginning of the study of grammar; also, how many and which of the terms, Noun, Pronoun, Verb, Adverb, Adjective, Conjunction, Preposition and Interjection should be given at the *beginning*?

19. How many of the principles of teaching will prove this position? State them.

20. Define adjective; state what you understand by *modify*.

21. State definition of preposition, as given in book, and criticise it.

22. State what must be taught in regard to verb before definition of regular and irregular verbs can be given.

23. State what must be taught in regard to verbs before "Principal Parts" or "Principal Forms" of the verb can be given; give reasons.

24. State the rules to be observed in giving or criticising definitions; or state all the characteristics of a good definition.

25. Define principle, definition and rule.

26. Give rule first in regard to questioning; give an example in which it is violated.

27. Give rules second, third and fourth in regard to questioning.

28. Give rules fifth, sixth and seventh in regard to questioning.

29. Why do verbs have the same number as their subjects?

30. State the difference between *questioning to develop an idea* and *test questioning*.

31. State the advantages, if any, of a graded oral course for children over the method usually pursued in books.

32. How will you meet this objection, "That more time is required in teaching Grammar objectively than in memorizing from books?"

33. In *analysis*, give the classification of sentences and the *basis* of classification in each case.

34. State all ways in which the *elements* of simple sentences are classified, naming the basis of each classification.

35. State all that must be taught in *analysis*, in regard to sentences which are *not simple*, before definition of complex and compound sentences can be given.

36. Define a complex sentence; give an example and analyze in full.

37. Define a compound sentence and give an example.

38. Define simple sentence. Give an example containing several kinds of modifiers. Analyze in full.

39. Define conjunction.

40. State all the *principles of teaching* given.

41. Mention instances (perhaps from some text-book with which you are acquainted) in which some or all of these principles are violated.

42. Define article. State the difference between an article and an adjective.

43. Criticise this definition, "A word used as the name of an object is called a noun."

43. Give the uses of infinitives.

44. Give definition and kinds of connectives; also, words used as such and state in what part of the work connectives should be considered.

45. Define Mood; and state which of the terms *mood* or *modes* should be used.

47. In beginning grammar, what subject will you take up *first*, and how much will you teach in regard to it in primary course?

48. State the reasons why the teacher should not indicate the answer by inflection of voice, emphasis or expression of countenance.

49. Criticise this answer which was given in examination yesterday. "Ask the question so the pupil will not know what the answer is."

50. What faculties are most active in childhood? To which of the faculties then should the teacher most frequently appeal in teaching children?

51. State three reasons in favor of teaching language objectively, and as many against.

52. State objections, if you have any, to the catechetical method of conducting a recitation.

53. State objection, if you have any, to the lecturing method of conducting a recitation.

54. Give your opinion of the rule "Questions should not be asked which can be answered by *yes* or *no*."

55. What "Parts of Speech" must be taught before definition of adverb can be given?

56. Define tense. Give your opinion of this definition "Tense is that accident of the verb which distinguishes the *time* of the action or state affirmed."

57. State the different ways in which participles are used.

58. Define grammar predicate, and state how many things it must include.

59. Give grammar predicate in this sentence "The sky is blue." State the use of each word in the predicate.

60. Define attribute, and name the parts of speech which may be used to express the attribute.

The class have gone into the schools (a large portion of them in my district); I have visited some of them in their school-rooms, and have learned of the success of others. The results are truly gratifying, and I beg leave to earnestly recommend the continuation of these special training classes in all the normal schools of the State.

I would suggest that teachers be required to leave with the district clerk at the close of each term, for inspection and use of their successors, a permanent record of their work, the text-books used, classification, advancement of each class, order of recitation and time devoted to each, and the standing of each pupil in the school. To enable the teacher to carry out this plan successfully, I would also suggest that the Superintendent of Public Instruction cause suitable blanks to be provided for the purpose, and attached to teachers' registers.

When the present normal schools assume their true relation to the common schools of the State, as "an inherent part of the public school system," when training schools are provided sufficient to accommodate all the teachers of the State, when by legal enactment all teachers shall be required to go through a course of systematic training, then will public school teaching take its proper place among the professions, and our schools become justly our pride.

Respectfully,

BARNEY WHITNEY,

School Commissioner.

LAWRENCEVILLE, Jan., 1873.

SARATOGA COUNTY—FIRST DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—In compliance with your circular of November 15, 1872, I submit this report:

In looking over the reports of commissioners from different parts of the State, for several years past, I am constantly and forcibly reminded that many of their statements are not candid. Anxious to stand high in the opinion of the State Department, and of their constituents, they are constantly asserting that their schools are in a highly prosperous and flourishing condition. Their reports are written on gilt edged and perfumed paper. The truth, in all its plainness and startling facts, is hidden by the brilliant colors in which they paint, and the pains taken to varnish their reports. Were their representations generally correct, the schools of this State would, years ago, have reached a point far above that attained by the schools under any other system. Perfection would long since have been attained. The practical workings of our common school system must, of necessity, be better known to and by school commissioners than by any other persons. The defects of that system, and of the laws under which it is conducted, they also know better than any other persons can know them. The knowledge acquired by the State Department, and by the Legislature, regarding our common school system, its wants, and the proper legislation relating thereto, must, of necessity, be mainly derived from this source. Legislators may have beautiful theories respecting such matters, but the practical relation, in which the commissioner finds himself placed toward our schools, shows to him the defects of these theories. That commissioner is derelict in duty, therefore, who fails to state fully the defects which exist, however humiliating it may be to him personally, or however painful and startling to the friends of education. I have no fancy picture to paint in my report; no glowing description of the wonderful proficiency of my schools; the high attainments of my teachers and scholars. No wish, in short, to class my district amongst those marvels of excellence annually chronicled by commissioners, whose constituents will have so much reason in the future (were their reports just) to "rise up and call them blessed."

On the contrary, I find myself compelled, in pain and

humiliation, to admit that the schools under my jurisdiction are in a deplorable condition. Extensive travel in nearly every part of the State during my term of office, intimate acquaintance with other commissioners and with large numbers of professional educators, with persistent inquiry in all available directions and upon all opportunities, force upon me the conviction that, as a rule, the schools throughout the State are in an equally bad condition. There was a time, during the first year of my term, when I fancied I had the worst possible district in the State. I do not think so now, having modified my opinion so far as to think my district as good as the average. Our schools could not be in this condition without a reason, and this reason must be either a defective system, a defective administration of the same, or both. Commissioners can render no higher service than to search for these defects, point them out and suggest remedies. Of course no commissioner can be expected to devise a plan free from fault, but, in the multiplicity of their counsel, there should be wisdom, and if defects are found in our system that all condemn, it may, with reason, be concluded that legislation should at least remedy such defects.

The great reason why our schools are so poor is that our teachers are poor. Teachers are poor from two main reasons:

1st. They are not professionally educated.

2d. They are not thoroughly examined and supervised by commissioners.

A poor teacher necessarily has a poor school. "The blind cannot lead the blind;" neither can a man teach what he does not know. Teaching is a profession. It should be regarded as a learned profession. As in all other professions, he who seeks to follow it should be professionally educated. Who would employ a lawyer who had never studied law? A physician who had never studied medicine? An engineer without knowledge of engineering? Why should teachers be licensed or employed without a thorough and profound knowledge of what they are to teach, and with no knowledge of the science of teaching? It is no light thing to train and mould the

human mind, to quicken the faculties, to strengthen the intellect, until it grasps the mysteries of nature and goes forth with giant strength to drink at every fountain of knowledge.

A teacher's professional education should consist,

1st. Of a thorough knowledge of what he will be required to teach.

2d. Of an ability to impart that knowledge.

No necessity exists for a common school teacher having a knowledge of the classics, or of the higher mathematics. As well ask an engineer to read medicine, or a lawyer to study trigonometry. It is well to know all these things, but few, however, have either time or capacity to be thoroughly familiar with anything outside of their own special calling. If the lawyer wishes to excel in his profession, let him eschew mathematics and study law; the physician, medicine; the teacher, teaching. More and more the business of the world runs into special channels, and requires those with special education to succeed in these respective channels. Our teachers are taught wrong. They have a smattering of too many things, and a profound knowledge of too few things. A smattering of Greek, Latin, French, music, rhetoric, and so on *ad infinitum*, comprises their course of study in too many instances. A mastery of the elementary branches taught in common schools, they never have. Too often they have been assured by the principals of the schools which they attended, "that they need not spend more time on these studies, but must hurry along and get into the higher branches." The very studies they are required to teach they know the least of. If ambitious, "they study up lessons" a little ahead of their classes, and stumble through terms of school, in this way acquiring an apparent idea of the very knowledge they have advertised themselves as possessing. But where is that familiarity with the subjects they are teaching, which alone can enable them to interest their pupils, and to clear from before their eyes the fogs enveloping every new study? Years of practice may qualify them, but in the meantime they have been frauds upon the public whom they serve.

Again, a man may possess all knowledge, but if he fail in the ability to impart that knowledge, he must assuredly fail as a teacher. As the painter portrays upon the dead canvass in bright and glowing colors, the picture which lives in his mind, so should the teacher stamp upon the minds of his pupils those living thoughts which alone comprise real knowledge. It is a rare and wondrous gift, sent by nature to but few, that enables one to be a true dispenser of light and knowledge; but many others may approximate towards it, by systematic culture. So far then as teachers in their respective spheres are required to teach, just so far I would require them to be masters of their profession, both in their knowledge of, and ability to give instruction in, those subjects. A gradation of teachers necessarily follows, and the gradation should depend entirely upon proficiency, as measured by some fixed, well known and impartial standard. Recognize teaching as a profession, admission to it depending upon, and to be attained only by conforming to the standard, and at once teachers of merit will be recognized and encouraged, and will receive a proper compensation for their services; and, on the other hand, blockheads, and those who with knowledge cannot impart it, will find themselves outside of school-houses, and in positions where their capacity for harm is materially lessened.

How then shall teaching be made a profession, and teachers be professionally qualified? The normal schools of the State are the great means towards these ends. A scholar graduating at one of these institutions receives a diploma, which is *prima facie* evidence of his qualifications and of his admission to the profession. He has attained to a fixed standard, which standard is high enough to cover the probabilities of his future professional employment. One thing at least is assured, his exact knowledge of the elementary branches taught in common schools, and commissioners look in vain for this assurance, if coming from any other quarter. Give us normal teachers is the cry from every commissioner district in the State. Why are comparatively so few of them in the field? Because they are not recognized as professional teach-

ers, as masters of their art, and are driven out of the field by teachers who are non-professionals, and will teach for lower wages for a few terms, "just to get a little money." Because non-professional teachers have crowded down teachers' wages, and the educated professional finds better compensation in some other field of labor, where the same fundamental knowledge is needed and appreciated.

Not that I would require all teachers to take a normal course, but only that I would require all teachers recognized as professionals to conform to the normal standard. I care not how they attain to that standard, simply that they do attain to it. I simply wish to say, that I regard normal schools as the best means yet devised for properly educating and fitting common-school teachers for the performance of their duties. I would admit any teacher amongst those recognized as professionals when they attain to the same standard, and would grant them a diploma of equal rank, after having passed a similar examination; such examinations to be conducted and diplomas granted by an examining board, consisting of normal professors, appointed for that purpose by the Department. I would give no commissioner or body of commissioners the power of making these professionals; merely the powers now granted by section seven, title two of the Code.

This would relieve professionals from the annoyance of annual or triennial examinations by commissioners, knowing less, perhaps of their duties, than the teachers themselves. It is right that an incentive should be held out to teachers to attain to a certain standard, which, when attained, entitles them to be recognized as professionals, as members of one of the learned professions, and as such entitled also to certain rights and privileges in distinction from non-professionals. I have no favor to curry with any normal school; no approval to give beyond that which is merited. Yet I desire, in this connection, to raise my voice in condemnation of the attempt made at the last session of the Legislature to decry the merits of the normal school system. I have never known a well

informed and unbiased friend of education do otherwise than eulogize the system and approve its workings. The man who talks against it either is not informed or "has an ax to grind." It is quite possible for a man to talk in the Legislature and not know what he is talking about, and the effort made to talk down "normals," in order to talk up "academies," is a striking illustration of the fact.

In connection with the examination and supervision of teachers by commissioners, I have little to say in addition to the views I have already presented in former reports. Such examination to be useful should be "uninfluenced by friends and unbiased by mercenary motives." The commissioner should stand in a position, so that his examination and decision thereupon should be with the only motive of fulfilling the law. A standard as inflexible as the decrees of fate should guide him, and he should, in all cases, be compelled to adhere to that standard. Candidates should be made to realize that commissioners are not to be blamed for their ignorance. Let them understand that if qualified they will be licensed, if not, rejected; that commissioners have no power to license them if unqualified, and a great stumbling block in the way of many commissioners will be removed. I do not see how commissioners can fail to be influenced more or less, according to circumstances, until their office is made strictly a non-partisan one. Remove commissioners from political influence, place them where they cannot run their office with a view to future re-election, and better examinations and supervision will at once follow.

Make the office one of appointment by the Superintendent, after competitive examination, and a great gain would be made over the present plan. As well might the pastor of a church be elected politically, as a commissioner of schools. It is no objection to this plan to say that it increases the responsibilities of the Superintendent, that it clothes him with too much power. He is in any event the responsible head of the system, and should have full power to appoint his subordinates. Even now he has the power of removal for cause

shown ; why not appointment as well ? Efficient supervision would necessarily follow judicious appointments. Compensation should correspond to the work done. A pecuniary inducement would insure visitation. A prescribed fee for each necessary visitation, with mileage for distances actually traveled, the account to be verified in items and audited by the board of supervisors, would, in my opinion, be an improvement.

I would also suggest, that commissioners might be saved much embarrassment, if some limit were placed by law to the age of teachers. No person is fit to teach a district school under twenty years of age, and but very few succeed after they are fifty. A young man or woman may possess a knowledge of books sufficient to enable him or her to pass the required examination, yet to succeed as teachers they should and must possess a knowledge of human nature, character, etc., which age and experience alone can bring. We do not consider a man wise enough to vote until he is twenty-one years of age ; the law does not even permit his contracts to be binding, but treats and terms him as "an infant." This limit is fixed, as that at which the average of men can safely be intrusted to do their own business. Should teachers be intrusted then with public business at a still more tender age ? Teachers are public officers, and receive compensation from public funds, but no other public office can they hold until they have arrived at what the law calls "years of discretion." I can safely say, I have never known a teacher to do well, under that age. In the absence of any legal limitation upon the subject, I established a rule of not examining candidates under eighteen years of age, and I found the result to be excellent. In the other extreme, it is said many of our best educators are over fifty. True, yet how few of them teach common schools. As a rule, teachers do not succeed in district schools, after arriving at that age. Class legislation always works harshly upon a few, yet the few should stand aside for the good of the many. District school teachers, like Methodist preachers, are itinerant, and itinerants succeed best when neither too old nor too young.

Having thus touched upon the recognition of teaching as a profession, the education of teachers, their examination, supervision and limitation, and some of the necessary qualifications of their examiners, I pass to the consideration of another reason why so many of our teachers are poor ones. I am now entering upon what some call debatable ground. In what I have to say regarding academies, I shall say only what I have found to be true in my own experience; I make no fight against what is styled the "academic system." That it may have merits I admit. That scholars may learn and teachers qualify at academies, I also admit. Against those academies, however, which are only leeches upon the public treasury, which deliberately humbug the public by false representations, I wage war. Other sections of the State may be more favorably situated than my own. So far, however, as my observation and inquiry have extended, I find the same sad state of affairs; I have never yet met a commissioner, a normal professor, an institute instructor, or in fact any one with a practical knowledge of the matter, except those connected in some way with academies, who did not denounce academies as one of the main causes in filling the teachers' ranks with those who are incompetent. "By their fruits shall ye know them." I judge them by this alone. In the three years of my commissionership, I have examined scores and hundreds of candidates who have graduated at some academy. The number who passed a creditable examination could be counted on the fingers of one hand. Too many of them were a disgrace to the schools at which they graduated. Most of them were in possession of "Regents' certificates." It cannot for a moment be admitted that the Regents of the University are other than men of the highest character and integrity. They are not knowingly parties to the gross frauds practiced at the so-called "Regents' examinations;" and no other conclusion can be arrived at than that the Regents are deliberately deceived by the principals of these academies.

The ignorance displayed by many of these graduates, upon the most elementary subjects, is astounding. How can a

graduate obtain a Regents' certificate who bounds the State of New York on the east by Vermont and New Hampshire, south by Connecticut and Rhode Island, west by Ohio and Michigan; or gives the Amazon as the largest river in Africa; or that has a north torrid and a south torrid zone; or that parses nouns as verbs, verbs as nouns; or the article, a, as an active, transitive verb; or the verb, to be, as a preposition; or that answering three questions negatively, in writing, each time writes, "know"? How, unless by fraud? Yet all these instances, and hundreds of similar ones, occurred in my own experience. Other commissioners, with scarcely an exception, privately tell the same sad story. And yet, with such evidences of the utter unworthiness of academic management, coming, as the evidence does, from every part of the State, and from the very sources of all others that are impartial, unbiased and practical, the Legislature can be induced to misappropriate thousands of dollars from the public treasury in sustaining such schools!

I do not say that teachers cannot qualify at academies. I simply say they do not. I do not say that all academies are bad. I simply say I do not know of one that is good. I assert that the academies of to-day do not turn out as good scholars as district schools did twenty years ago. Principals can be found of such unblushing effrontery as to send, with their graduates, letters of commendation to commissioners, recommending, in the highest terms, candidates whom the commissioner, by examination, finds utterly unqualified, and whom the principal must have known to be so. If principals will deliberately attempt to deceive commissioners, equally so will they deceive the Regents. This honorable body has to shoulder blame which properly attaches to the principals of academies. The reason for this systematic deception is this, it is a source of profit to the principals. They make a speculation by it. With their so-called "normal classes," they deter many from going to the normal schools, making pupils and parents believe that they can obtain the same course of study at far better rates at home. "Teachers" are thus

ground out by scores, whose only qualifications are a letter of recommendation from their principals and a Regents' certificate. It may be said that this is strong talk, and that I am not warranted in making such assertions. I present simply facts, assert nothing but the truth, and if the truth hurts these principals and their schools, they can blame only themselves for it.

"'Tis true, 'tis pity,
Pity 'tis, 'tis true."

It is time the Regents were apprised of the gross frauds practiced upon them as well as the public. It is time that the intelligent and powerful public press grappled with this evil. It is time that the earnest educators of the State, painfully aware of this evil, laid aside their modesty and prepared to give it battle to the death. It is time that the Legislature was informed upon the subject, and, instead of allowing them longer to fatten at the public crib, should cut them off forever and leave them to their own resources. It may, with safety, be laid down as a cardinal principle in such matters, that no private school should be sustained, wholly or in part, by the public treasury.

I mean by private schools, those owned and managed by private citizens, as a business speculation, and for private emolument. I may print a newspaper; it is private capital which I invest, and I print the paper for my own private gain. It is a private business speculation, and I have no right to ask donations or help from the public treasury, because the public reads, or is profited, or even educated by my paper. So with schools; I may invest an equal amount of capital in a school; I say who shall and who shall not be admitted as students; I lay down certain rules for the guidance of its inmates; I prescribe a certain course of study. Like the other, it is a private speculation, established and conducted for my private gain. Shall I, because it is a school, be allowed to fasten upon the public treasury? Must the public, in either case, be asked to sustain my private speculation? A good private school is not only always self-sustaining, but a source of profit and

revenue to its owner. No private school is worth sustaining that cannot flourish without aid from the public treasury. Cut off public aid from these schools, throw them entirely upon their own resources and merits, and at once the most objectionable features of the academic system will end. The country will no longer be overrun with "teachers," graduated solely as a speculation. Professionals will no longer be crowded out of place by those possessing no qualifications, except such as I have mentioned. A better class of teachers will be in demand and will find employment at profitable wages, and at once our common schools will improve. It is idle to say that the remedy for all this is in the commissioner. He may do much by strict examination and vigilant supervision, but no good reason exists why his candidates should not be qualified, nor why his supervision should not be over schools that are conducted by intelligent, educated professionals.

My opinions as to our library system, and the application of the library money, as given in former reports, have been strengthened by another year's experience. My statistical report will show how completely this fund is perverted in disregard of the law.

The teachers' institute for the county, held this year at Saratoga, with Prof. Sanford and Mrs. Himes as conductors, was the best institute as yet held in the county. I trust the future will witness a steady increase of interest in this valuable aid to teachers. I repeat the recommendation made in a former report, that attendance at institutes be made obligatory upon teachers, unless, for cause shown, attendance is excused by the commissioner. It seems to be the only way of benefiting, by aid of institutes, those most in need thereof.

I would suggest that an amendment to the school law might with great propriety be made, by which the Superintendent, and also commissioners could enforce obedience to their orders. It is often said that the law clothes the Superintendent with arbitrary powers. In my opinion, his powers are not sufficiently so. He may in many instances issue orders, but unless trustees or districts choose to obey them, they are of no effect.

He cannot enforce them. It is a singular anomaly that the law may authorize him to decide a case, and that so far as the law goes his decision is final, not even the highest courts in the State having power to modify or set it aside, and yet this very order may be a dead letter. He cannot compel obedience to it. It is like the "Pope's bull against the comet." It reads well upon paper, but does not affect the comet. With commissioners it is even worse. One may find a school-house wholly unfit for tenancy by human beings, the district too penurious to repair it or build anew, and the supervisor indifferent or too fearful of his popularity to risk a few votes by joining in an order of condemnation; the commissioner makes an order directing the expenditure of two hundred dollars in repairs, and the trustees either refuse point blank, or else neglect to carry the order into effect. The school law points out no way by which the commissioner can enforce the order. I had a similar case within the past year. It was only after I had assured the trustees that I would present their case before the grand jury of the county for indictment that the order was carried into effect. Should a commissioner be obliged to resort to such harsh measures? In this case two trustees were in favor of the repairs and about half the district also, the third trustee and balance of the district objecting. All admitted the need of repairs, but a personal or political quarrel caused the dissension. I mention this case merely as a strong illustration of the unpleasant position in which the law, as it now stands, may leave an official striving only to do his duty. I submit that a remedy might easily be found by authorizing the Superintendent or commissioner in all similar cases to withhold from districts in default all participation in the public money until the order is complied with; districts, in all cases arising between themselves and commissioners direct, having the right of appeal to the Superintendent for redress as against any arbitrary or uncalled for order on the part of commissioners.

I have, in former reports, offered suggestions as to other defects in our present school law, with such proposed changes

as my experience has led me to deem advisable. It is unnecessary for me to repeat them here, or the arguments which were advanced in their favor. I am strongly opposed to the constant tinkering of fundamental law. On the other hand, I believe the world to be progressive, and I would allow nothing defective to stand in the way of its progress. Laws regulating a system, be that system what it may, should be jealously guarded and kept intact, until its defects are patent and the remedies suggested. These remedies should be such as experience pronounces advisable. Our free school system can no longer be deemed an experiment. The State is committed to its policy. That policy in its general features is a success and merits the approval it receives. In many of the minor details of its administration it is defective. These defects I would see remedied. Changes in the law must come through the Legislature. The suggestions for such changes, and their necessity, properly come to the Legislature by and through the State Superintendent. He must, in a great degree, depend upon commissioners for details. Those commissioners will be nearer their duty who, instead of reporting their districts as bordering on perfection, as being "all right," will frankly tell him of that which is wrong. Such defects as I have found in my official capacity, I have pointed out in my reports. If it is said that my proposed changes and remedies savor of coercion, I answer, that I seek to make them effective. Kid gloves are not needed in a combat with ignorance and cupidity.

Assuring you that I shall always look back upon the official relation that has existed between us with pleasure, I submit this report as my last official act, and thanking you for the uniform courtesy received at the hands of yourself and assistants, I am very respectfully,

Your obedient servant,

SETH WHALEN,

School Commissioner.

BALLSTON SPA, N. Y., Dec. 27, 1872.

SARATOGA COUNTY—SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction:

SIR.—I send you the following in addition to the financial and statistical report already forwarded to your Department.

The school districts in this commissioner district remain the same as last year, except that one party has been set off from one district to another. Several applications have been made to be transferred to other districts, but trustees will not give their consent, although, in some cases, it would be an advantage to all parties.

Trustees who have thirty-six and even forty weeks' school, complain because they receive no more public money than if they maintained school twenty-eight weeks. I find the districts having the longest terms are anxious to have the best teachers, and, as a general thing, take pains to have the school-house and its surroundings in good order. Two districts have failed to have school the required twenty-eight weeks. There is a general feeling, on the part of the inhabitants, to have better schools; consequently a demand for more good teachers. My time is fully occupied with the duties of the office, and I find it too short to do all that needs to be done. I have visited nearly all the schools in my district twice during the past year, and many of them three times. During the spring, I meet teachers in the different towns for examination. In the fall all are expected to attend the institute, where opportunity is given for examination. There is one continual round of work, but I have the satisfaction of knowing that the schools are improving.

Thirteen pupils have been appointed to the normal schools of the State from this commissioner district, during the year past. Most of them are in the schools now, and I hear are doing well. One from this district graduated at the Albany Normal School last commencement, and is now teaching near this place.

According to trustees' reports, there is a falling off in the number of children between the ages of five and twenty-one, but an increase in average attendance. The whole number of children of school age in this commissioner district is eight thousand five hundred and thirty-seven, and of these twenty-two hundred and eighty-four are in the village of Saratoga Springs. Of the whole number, six thousand three hundred and ninety-eight attended school some portion of the year. The whole number of teachers employed at the same time for twenty-eight weeks or more is one hundred and forty. The whole number of school-houses is one hundred and twenty-two. Several districts are now building new houses.

Five private schools reported an attendance of one hundred and eighty-three pupils. One of these is Temple Grove Seminary, located in the village of Saratoga Springs.

The meeting of the State Teachers' Association in this place, during the past year, did much good, not only among the teachers, but the friends of education throughout this vicinity. The first and second commissioner districts united in holding a teachers' institute in the village of Saratoga Springs, beginning the 26th of August and continuing ten days. The exercises were conducted by Prof. Henry R. Sanford, of Fredonia, assisted by Mrs. Himes, and were exceedingly instructive and profitable. It is better to have the same instructors from year to year, because they understand the wants of the teachers. The whole number of teachers in attendance at our institute was two hundred and twenty-three, with an average attendance of one hundred and forty, a decided gain in numbers and average attendance.

Thanking you for the many favors received, I am, very respectfully,

Your obedient servant,

O. F. STILES,

School Commissioner.

SARATOGA SPRINGS, Dec. 18th, 1872.

SENECA COUNTY.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—There has been a marked improvement in the schools of the county during the past year. The inhabitants of the several school districts are fully aware of the advantages derived from good schools, and they are in earnest in every effort to improve them.

The value of school-houses and sites was, on the 30th day of September, 1872, \$120,845. Since that time the Collegiate Institute property, situated in the village of Ovid, has been purchased by union school district No. 1, Ovid, which raises the above amount to \$140,000. The inhabitants of districts, generally, are willing to raise any amount of money necessary for building good substantial school-houses. A few districts have poor school-houses yet, but the delay to build has been in consequence of difficulty concerning sites or contemplated changes in the districts.

The libraries of union schools are valuable and they are appreciated ; but in the common school districts they amount to but little and are generally neglected.

The schools are well classified, and good order prevails in nearly every school. Teachers have had very little difficulty in governing their schools in this county the past year, and a resort to punishment of any kind has been seldom necessary. The qualifications of teachers in Seneca county, as compared with last year, are considerably better.

The teachers' institute held at Ovid, commencing October 7, 1872, was well attended by the teachers of the county, and it was profitably conducted by Prof. R. E. Post, assisted by Profs. Boughton and Gillett.

I have, as far as practicable, restricted the time for the examination of teachers to three days in the spring, and three days

in the fall; the result I think favorable to our schools, and a decided improvement in the grade of teachers.

Your obedient servant,

WILLIAM HOGAN,

School Commissioner.

WATERLOO, Nov. 26, 1872.

SUFFOLK COUNTY — FIRST DISTRICT.

Hon. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The following report of the condition of the common schools in the first commissioner district is respectfully submitted :

I abstract the following from the financial and statistical reports made to the Department in October last :

The amount apportioned to this district for the past school year was \$11,335.25; \$11,104.93 for the payment of teachers' wages; \$230.32, library money; an excess over the year previous of \$92.26. The different towns received as follows: Easthampton, \$923.87; Riverhead, \$2,424.42; Shelter Island, \$292.54; Southampton, \$3,858.92; Southold, \$3,835.92.

The sum raised by tax in Easthampton was \$1,077.08; in Riverhead, \$5,346.24; in Shelter Island, \$813.83; in Southampton, \$6,593.79; in Southold, \$11,322.93; total, \$25,153.87, being \$2,364.14 less than the previous year. A decrease in this regard obtained only in the towns of Riverhead, Shelter Island and Southampton, and was due to the smaller sum expended in the repairing, enlarging and furnishing of school buildings, while in the other towns there was an increase of taxation.

The following was the assessed valuation of the taxable property in the several towns: Easthampton, \$567,301; Riverhead, \$868,945; Shelter Island, \$205,508; Southampton, \$1,940,619; Southold, \$2,339,090, making an aggregate of \$5,921,455. The average rate of taxation for school purposes

in the town of Easthampton was one and nine-tenths mills ; in Riverhead, six and one-tenth ; in Shelter Island, three and nine-tenths ; in Southampton, three and four-tenths ; in Southold, four and eight-tenths ; average rate for the district, four and two-tenths.

There was expended for teachers' wages, during the year, the sum of \$27,530.57, being \$1,817.49 more than in 1871. Shelter Island expended for this purpose \$278 less than the year before, while in the other towns there was an increase in the amount paid for that purpose. The money expended for school apparatus amounted to \$287.08, exceeding the amount of the previous year by the sum of \$276.36. All of the schools are sadly deficient in this respect, and many of them nearly destitute. Forty school districts use the library money in payment of teachers' wages, \$93.96 being so used. Were all districts compelled to expend their share of this money in procuring school apparatus I am confident a much greater benefit would accrue therefrom.

The total receipts and expenditures were, for Easthampton, \$2,153.43 ; Riverhead, \$8,455.11 ; Shelter Island, \$1,106.37 ; Southampton, \$12,233.77 ; Southold, \$17,252.75 ; for the entire district, \$41,201.43.

Schools were maintained in sixty school districts, employing at the same time eighty-one licensed teachers ; the average length of time school was taught was thirty weeks. The whole number of persons engaged as teachers in the common schools of the district was 139, fifty males and eighty-nine females. Of this number three held State normal school diplomas, three State certificates, and the remaining 133 were licensed by school commissioners.

There was no school in district No. 19 (Red Creek), town of Southampton, during the past year, nor the year previous, in consequence of a lack of pupils. For a similar reason, there has been no school in district No. 6 (North-west) town of Easthampton, for many years, until last March, when a school was started, continuing twenty-eight weeks, and in all probability will be regularly maintained in the future.

In district No. 14, of the town of Southold, comprising Plum island, and, on Gardiner's island, a district, at present unnumbered, in the town of Easthampton, no school was ever held so far as I am able to ascertain, nor are there any indications of a change in this respect, the only inhabitants being the proprietors, their families and such other persons as may be temporarily employed as laborers. The valuation of property in these islands is considerable, and I am unable to understand why said property should be exempt from all local taxation for the support of schools more than many unsettled and unimproved portions of other school districts. Robbins' island, by a decision of the Department, was constituted a part of an adjacent district, and thereby made to contribute its quota to the support of the school therein, and it appears to me that the same rule would apply to these islands as well.

Considerable outlay has been made in some districts in repairing, painting and otherwise improving the appearance and convenience of their school buildings. The school-house in district No. 2 (Orient), town of Southold, which was condemned during the year, has been removed, the site enlarged and a new, commodious and attractive house erected thereon, at a cost of \$4,000. Although many of the inhabitants severely denounced "the arbitrary proceeding," which deprived them of their old school-house, I believe the conviction to be nearly universal, that it has resulted most favorably, and I am certain that never was the interest in the success of their school greater, nor the condition of the school more thriving. An intelligent and devoted corps of teachers, active and efficient board of trustees, appreciative and progressive popular sentiment, all combine to render this school one of the most prosperous in this part of the county.

In view of the above, and many other facts which might be adduced, I think it clearly obvious that the people of the "East End" appreciate the advantages which education secures, and are disposed to avail themselves of the manifold benefits our system of common schools was intend to confer. Those schools of which particular mention was made in my

last written report still maintain their rank, and, in many others, evidences of improvement are manifest, reflecting great credit upon the teachers in charge.

Prof. D. H. Cruttenden, assisted by his wife, conducted our institute, held at Riverhead in October, in their usual masterly manner. Both were never more instructive or more successful in the discharge of their duties. Mrs. Cruttenden's method of teaching history and drawing, showing the application and uses of the latter as an aid to the teacher in any and all the departments of learning, can scarcely be excelled, and must tend to procure for those studies far more time and attention than has customarily been given in too many of our schools. In addition to her class-work, Mrs. C. addressed a crowded house on the last evening of the session, showing the relative position of the various arts and sciences in the scale of human knowledge, and their influence upon society, and dwelling at length upon the effect of those of an æsthetic nature on the individual character. The lecture received the closest attention, and at its close was highly eulogized.

With this report the term of office, to which three years since I was elected, closes. During this time I have addressed myself to the removal of what I considered the greatest obstacles to the efficient working of our common-school system. Where I have had the coöperation of teachers and school officers these obstructions have been materially lessened, and I take this opportunity to express my obligations to such teachers and officials; their zeal for the cause of education and willingness to do all in their power for its promotion, will ever be held in grateful remembrance.

Having been reëlected to the office, and conscious of no abatement of interest in educational matters, with three years of experience I hope to achieve still more for the advancement of a cause so essential to individual and national weal.

H. W. BENJAMIN,

School Commissioner.

RIVERHEAD, Dec. 31, 1872.

SUFFOLK COUNTY—SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—This district now comprises the towns of Babylon, Brookhaven, Huntington, Islip and Smithtown. By an act of the Legislature, passed in March, 1872, the town of Huntington was divided, and that portion lying south of a line one mile north of the Long Island railroad and parallel to it, was established as the town of Babylon, while the other portion remained as the town of Huntington. This obliged me to number anew the school districts in the new town of Babylon, and several in the town of Huntington. Babylon has the school-houses of seven districts within its limits. Joint district No. 22, formerly of Huntington, became joint district No. 8, of Babylon. The house is in the town of Oyster Bay, in the county of Queens. District No. 28, of the old town of Huntington, was, just previous to the renumbering of the districts as above stated, consolidated with district No. 7, of Huntington.

My immediate predecessor, in his annual report to the Department, made in November, 1863, in speaking of the attendance of pupils, says, "Without any hesitation I affirm that not fifty per cent of the children of school age in this assembly district, have entered a school-house for the purpose of receiving instruction during the year ending September 30, 1863; and that, of the number that have been so instructed, no more than twenty-five per cent were in attendance for a longer period than two months."

At that time teachers were not, as now, required to make oath to the correctness of their registers; indeed, many had no register, but kept their rolls of attendance on loose slips of paper. The statistics were not otherwise as reliable as those taken at the present time. The statement above quoted, however, is made with a clearness and a precision that do not admit of a doubt that the writer himself had full faith in its truth or correctness. He had been performing the duties of school commissioner for many years, and was devoted to the

work, so that no one could judge more correctly than he in such matters.

By the new mode of collecting statistics, which went into operation in 1865, we are able to obtain a pretty correct knowledge in these particulars, and the statistics for that year show a very decided progress over 1863. In 1865, the number attending school was 5,280, and the average daily attendance was 2,107. The entire school population was 8,774. The average time school was taught, throughout the commissioner district, was a little more than thirty-three weeks, or over eight months. Thus, in 1865, over sixty per cent of the school population attended school some portion of the year, and the average daily attendance at school, for more than eight months, was over twenty-four per cent.

This is not singular. The statistics, from 1865 to the present time, give unmistakable evidence of very decided progress in the cause of public instruction. The number of pupils attending school, in 1872, was 6,629, being an increase over 1865 of 1,349; of this increase the town of Brookhaven has 169; Huntington (including the new town of Babylon), 866; Islip, 310; and Smithtown, four. The average daily attendance, in 1872, was 3,206, being 1,099 greater than in 1865, or an increase of fifty-two per cent. For Brookhaven, 297; Huntington and Babylon, 515; Islip, 246; and Smithtown forty-one. Brookhaven had an average daily attendance of thirty-five per cent of its school population; Huntington, thirty-five and a half per cent; Babylon, twenty-eight per cent; Islip, thirty-one and a half per cent; and Smithtown, twenty-eight and a half per cent.

This increase in the attendance has been gradual, except in 1868, when, owing to the abolition of rate-bills, the gain was larger than at any other time. The number of children of school age in 1872 was 9,683, exceeding that of 1865 by 909; for Brookhaven, sixty-two; Huntington and Babylon, 694; Islip, 116, and Smithtown, thirty-seven. The average time, school was taught in 1872, was over thirty-five weeks. The attendance at school, therefore, in 1872, was equivalent to one-third of the

whole number of children of school age being at school every day for nearly nine months. The increase of attendance has required an increase in the number of teachers. Twenty-five more have been employed to instruct the extra eleven hundred pupils in daily attendance.

The amount of public money apportioned to this district in 1872 was \$16,674.29, exceeding that of 1865 by \$7,999.96. Of this Brookhaven has \$2,710.44; Huntington and Babylon \$3,378.14; Islip \$1,461.94, and Smithtown \$449.44.

The amount raised by tax in 1872 was \$49,600.78, exceeding what was raised in 1865, as tax and rate-bill combined, by \$31,636.14. This increase is, for Brookhaven, \$10,369.55; Huntington and Babylon, \$12,346.26; Islip, \$8,130.39; Smithtown, \$789.94.

The money expended for teachers' wages in 1872 was \$43,829.60, being \$20,703.64 more than in 1865. Of this increase Brookhaven furnished \$7,384.10; Huntington and Babylon \$7,267.11; Islip \$5,047.50, and Smithtown \$1,004.93.

The total receipts and expenditures were, in 1872, \$76,791.85, being \$47,680.31 more than in 1865. Of this increase Brookhaven has \$13,721.88; Huntington and Babylon, \$21,616.40; Islip, \$10,903.88, and Smithtown, \$1,438.64. No one, certainly, will deny that these figures indicate remarkable interest and activity in school matters.

In many districts the school-houses were too small to accommodate the pupils. In those cases some were enlarged, and others were replaced by new ones. The estimated valuation of school-houses and sites in 1865 was \$47,551; in 1872 it was \$113,653, an increase of nearly 250 per cent. The amount expended for school-houses, sites, fences, out-houses, repairs, furniture and the like, in 1872, was \$21,285.47. About \$7,000 was for buildings erected during the year, and much of the remainder was for payments on houses previously erected. Seven new houses have been built the past year at Amityville, Bay Shore, North Babylon, West Babylon, South Haven, Ridgeville and Ronkonkoma.

Since 1865, twenty-seven new school-houses have been built,

and eleven others enlarged or thoroughly repaired. In the town of Brookhaven, ten were built and one raised a story and enlarged. In the present towns of Huntington and Babylon, twelve have been built and four enlarged. In the town of Islip, four have been built and three enlarged. In Smithtown, one built, and three enlarged and thoroughly repaired. Quite a number of these new buildings cost upward of \$4,000 each; one, \$7,000, and one, \$11,000. The cost of enlarging in one instance, included above, was \$6,000. These improvements have been almost wholly voluntary on the part of the residents. But six school-houses have been formally condemned.

The average wages for a teacher, in 1865, was \$251.36 per year of thirty-three weeks. In 1872, it was \$374.61, for thirty-five weeks. In 1865, \$500 was considered a pretty fair salary for our best male principals. Teachers then receiving that sum, or less, left the county, and are now receiving elsewhere some four times, others five times, that amount. The highest price paid in 1872 was \$1,300. Several male principals are receiving \$1,000, and one female principal gets \$750, which is the highest. The teachers are generally persons of intelligence, fully competent to instruct and to govern. They are earnest, ambitious and faithful. Many possess much taste and refinement.

We had an institute at Riverhead, commencing October 7, and continuing two weeks. Prof. D. H. Cruttenden and Mrs. Cruttenden officiated. My opinion of Prof. Cruttenden has heretofore been fully given. Further knowledge of him confirms me in that opinion. Mrs. Cruttenden's instructions in history and graphics possessed real merit, and were valued by all. Mrs. Cruttenden gave an evening lecture upon "The Unity of the Arts, Sciences and Religion," which contained much original thought. Dr. James Cruikshank lectured upon "The Structure of the Alphabet," and Commissioner Mount upon "Civil Government." The Rev. Wm. Isaacs Loomis, LL. D., lectured upon "The Natural Law of Motions," in which he took the position that "a globe by a single motive

force could be urged in any conceivable direction; that Sir Isaac Newton, not knowing that a single motive force could impress a globe with curvilinear motion, his views in relation to the movements of the planets are not true to nature." The lecturer had evidently thought much upon the subject, and announced some startling propositions with a boldness and force of speech that belong to a conviction of newly discovered truth. In this connection I should mention that in July last Prof. Cruttenden held at Riverhead, for two weeks, what he terms, "Linguistic Conversations," at which he discussed the science of language. In an educational view the session was a complete success.

Upon the subject of supervision, I desire to record my approval of the views expressed by Commissioner Whalen, of Saratoga county, in his report of December, 1870.

I take this opportunity to tender my sincere thanks to the Superintendent of Public Instruction for the aid and encouragement he has rendered me, and for his uniform kindness and courtesy. The office of school commissioner, which I have held for the last nine years, I this day relinquish. Its duties, its responsibilities, its powers, its opportunities for me, will soon be among the things of the past. I assumed them, impressed with their importance, and familiarity with them has not lessened my respect for them. I assumed them, firmly resolved to apply myself assiduously and perseveringly to their faithful performance. How far I have been successful others must determine. In this respect I am not troubled by the remembrance of any serious dereliction of duty. I have tried to do right; I hope I have done well.

THOMAS S. MOUNT,

School Commissioner.

STONY BROOK, L. I., Dec. 31, 1872.

WASHINGTON COUNTY—SECOND DISTRICT.

HON. ABRAM B. WEAVER,

Superintendent of Public Instruction :

SIR.—The annual reports of the school trustees, for the year ending September 30, 1872, furnish a variety of statistics interesting to all having any concern for the welfare of our public schools.

The number of school districts, reported in the second commissioner district of the county, is one hundred and eighteen. The number in the respective towns is as follows: Dresden, nine; Fort Ann, nineteen; Granville, eighteen; Hampton, six; Hartford, thirteen; Hebron, seventeen; Kingsbury, fifteen; Putnam, seven; and Whitehall, fourteen. Of these, one hundred and fifteen are common, and four are union school districts, organized under the general union school act. The union schools are located, one at Sandy Hill, one at West Hebron, one at Middle Granville, and one at Whitehall.

The amount received and disbursed in the several districts reaches the large sum of \$51,613.24.

The principal sources from which money is obtained are the State funds, constituting what is called public money, and taxation. The amount of public money apportioned to the several districts was \$17,576.39. The amount raised by tax was \$29,461.31. Of the remainder the sum of \$1,152.41 was on hand at the beginning of the school year; \$2,727.50, the estimated value of teachers' board; and \$695.63, the amount received from various miscellaneous sources, as tuition bills of non-residents, legacies, etc. The principal items of expenditure were for teachers' wages, school-houses, repairs, furniture, fuel, etc. The amount expended for teachers' wages was \$36,060.92; for school-houses, repairs, furniture, etc., \$8,184.94; for fuel and other incidental expenses, \$6,830.41; for libraries, \$18.90, and for school apparatus, \$82.99. There were \$435.08 in the hands of trustees September 30, 1872, available for school purposes.

The amount expended for teachers' wages by towns was as

follows: Dresden, \$1,481.87; Fort Ann, \$4,638.29; Granville, \$5,261.37; Hampton, \$1,073.10; Hartford, \$2,562.27; Hebron, \$3,682.79; Kingsbury, \$7,725.73; Putnam, \$914.02; Whitehall, \$8,721.48. Total, \$36,060.92.

The whole number of children of school age, residing in the several towns in this district, was as follows: Dresden, 289; Fort Ann, 1,077; Granville, 1,340; Hampton, 297; Hartford, 613; Hebron, 779; Kingsbury, 1,636; Putnam, 193; Whitehall, 3,278. Total, 9,502.

The whole number attending some part of the school year was as follows: Dresden, 223; Fort Ann, 850; Granville, 1,077; Hampton, 229; Hartford, 496; Hebron, 631; Kingsbury, 1,389; Putnam, 141; Whitehall, 1,307. Total, 6,343.

The average attendance was as follows: Dresden, 108,934; Fort Ann, 449,974; Granville, 525,215; Hampton, 97,266; Hartford, 254,724; Hebron, 335,381; Kingsbury, 678,888; Putnam, 77,858; Whitehall, 593,911. Total, 3,122,151.

From these statistics, it appears that one-third of the whole number of the children of school age did not attend any part of the year; and that out of the whole number claiming to attend at all, only one-half, on an average, were present every day.

The whole number of teachers reported was 266; of which eight were licensed by normal schools, ten by the State superintendent, and 248 by the commissioner of the district. Sixty-two were males, and 204 were females.

The number of volumes reported in all the district libraries was 9,699, valued at \$2,901. Out of the whole 118 districts, only eighty-six have book cases for their library books.

There were 120 school-houses reported, of which ninety-seven were frame; twenty, brick; and three, stone. Of the stone school-houses, two were in Fort Ann, and one in Kingsbury.

The estimated value of school-house sites, was \$19,675; of school-houses, \$107,020; making the total estimated value of the school property \$126,695. These were in the respective towns as follows: Dresden, \$1,850; Fort Ann, \$11,320;

Granville, \$21,780; Hampton, \$1,825; Hartford, \$5,060; Hebron, \$11,660; Kingsbury, \$34,650; Putnam, \$1,185; Whitehall, \$37,365. Total, 126,695.

Kingsbury is the banner town in two respects; it reports a larger average attendance than any other town, and, also, a greater number of weeks taught during the school year. Of its fifteen districts, one had forty weeks of school, five had thirty-two weeks each, one had thirty-one, three had thirty each, three had twenty-nine each, and only two restricted themselves to the shortest possible time of twenty-eight weeks each.

The banner common school district, as regards length of time in which school was actually taught, was district No. 5, on Morris Hill, in the town of Hampton. This district had thirty-six weeks of school. We call attention to this, because it deserves commendation on its own account. In addition, it is composed mainly of Irish families, the trustee himself being an Irishman. It effectually refutes the slander, that the Irish in this country are opposed to education or are unaware of its benefits.

One hundred and one districts have one trustee each, thirteen have three trustees each, and there are four boards of education, of nine members each. One hundred and thirteen districts own their school-house sites; five do not. Only five school-houses are separated from the highway by a fence; one hundred and fifteen are not separated. One hundred and two school districts have privies, sixteen do not! In fifty districts the teachers boarded around; in sixty-eight they did not.

In all the districts, school was taught only five days in the week. Six districts, one in each of the towns of Dresden, Fort Ann, Granville, Hampton, Putnam and Whitehall, paid the teachers' time while attending the teachers' institute. One hundred and thirteen districts used all their library money in payment of teachers' wages; only five did not use it. Two districts have built new school-houses this year; to wit, district No. 17, in Fort Ann, and district No. 10, in Granville.

One of the most conspicuous instances of irregularity, on the part of school officers, is the neglect to keep a record of

the financial transactions of their respective districts, in a book belonging to the district. Some, and a larger proportion than might be expected, do not even keep a cash account. It therefore happens that this part of the trustee's report is the most perplexing to the trustees and the commissioner, and the most difficult to make out. Every district should have a book, in which the trustees should enter, under appropriate heads, the amount received and disbursed. Of the 118 districts, sixty-two have a district cash-book, and fifty-six have not.

In closing this abstract of his last annual report, the commissioner begs leave to make one or two suggestions concerning the means for making our common schools more effective. The patrons and tax-payers should take more interest in the schools, and be willing to pay the amount necessary to secure competent and efficient teachers, and to make their school-houses comfortable and attractive. People are willing to pay almost anything to provide suitable raiment and food for their children, and yet, too often, they are unwilling to expend the comparatively small amount to secure a good education for them. Our common schools should be of a sufficiently high grade to enable the pupils to become proficient in grammar, arithmetic, geography, reading, spelling and writing. Yet, as they are now generally conducted, it is necessary to send children away from home, at great expense, to acquire even an ordinary English education. To show the wages paid our common school teachers, take the town of Kingsbury as an illustration.

This town is selected because it seems to possess full as much spirit about school matters as any other, and the wages paid are fully as liberal. Yet, outside of the union school in Sandy Hill village, the average of teachers' wages for summer school, including board, is but five dollars and forty-four cents; say five dollars and fifty cents. If we allow two dollars and fifty cents as the price of board, which is certainly low enough, we have three dollars a week as the price of teachers' wages. Now we ask, in the name of common sense,

as wages in other departments of industry are, what can be expected of teachers at that rate of compensation.

But we must have a higher standard of qualification on the part of teachers. This has been the objective point of the going commissioner, in all his school work. The idea has been in examinations to make teachers aware of their imperfections, and to awaken in them a desire to remove them. He very soon became satisfied that we could not at present expect professional teachers in our common schools. What he labored to accomplish was, to secure a corps of teachers from the sons and daughters of well-to-do farmers, who would naturally have a few years, more or less, between the time of their finishing their education and that of their settling down in life, in which to devote a portion of the year to teaching. He encouraged those, who were going to spend a year or so away from home at school, to go to the State normal schools, where they would not only receive just as good instruction as at other institutions, but would also be instructed in methods of teaching. His labors in that direction have not been wholly without result; and he has recommended a larger number for appointment to the State schools during the past year than during the whole former period of his commissionership. Let this be continued for a few years longer, and we shall have teachers worthy of the vocation, and our common school system will realize the purpose it was intended to accomplish. And thus, we are sure all the people will say, amen.

WILLIAM H. TEFFT,

School Commissioner

WHITEHALL, Dec., 1872.

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No. 167.

IN ASSEMBLY,

April 3, 1873.

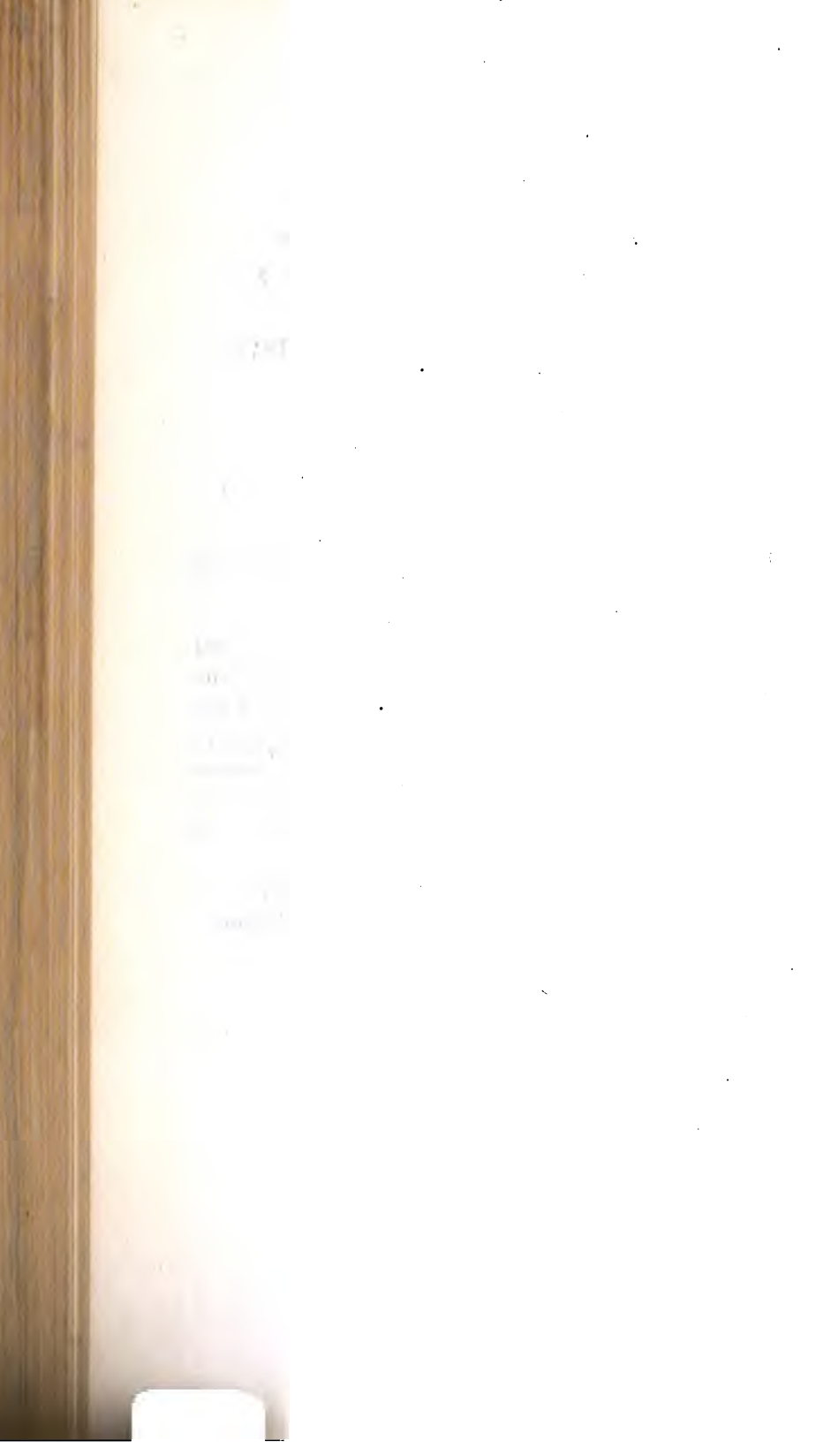
REPORT

OF COMMITTEE ON CLAIMS, ADVERSE TO CLAIM OF
GEORGE CHAMBERLAIN.

Mr. Lincoln, from the committee on claims, to which was referred the bill entitled "An act in relation to the claims of George Chamberlain, for damages occasioned by the partial construction of the Genesee Valley canal," having taken up the same, and examined the affidavit of said George Chamberlain thereon, the said committee conclude that there is not sufficient evidence in said affidavit to warrant it in recommending its passage; and said committee has, therefore, reported adversely thereto.

C. S. LINCOLN,
Chairman.

[Assembly No. 167.]







JOURNAL
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STATE OF NEW YORK.

No. 168.

IN ASSEMBLY,

March 28th, 1873.

ANNUAL REPORT

OF THE

AMERICAN GEOGRAPHICAL SOCIETY OF NEW
YORK FOR THE YEAR 1872.

ROOMS OF THE AMERICAN GEOGRAPHICAL SOCIETY, }
COOPER INSTITUTE, }
NEW YORK, *March 28th*, 1873. }

Hon. A. B. CORNELL,

Speaker of the Assembly :

SIR,—I have the honor to transmit herewith the annual report of the American Geographical Society of New York for the year 1872.

Very respectfully,

Your obedient servant,

DR. E. R. STRAZNICKY,

Recording Secretary.



AMERICAN GEOGRAPHICAL SOCIETY.

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ANNUAL REPORT

OF THE

AMERICAN GEOGRAPHICAL SOCIETY.

To the Honorable the Legislature of the State of New York :

The undersigned beg leave to present this their second annual report, for the year 1872, in accordance with the provisions of the act of April 8, 1871. It contains the list of officers of the present year, the Society's receipts, expenditures and financial condition up to the present time ; the annual report of its Council, the reports of its various officers, the state of its library, and the papers read before it, which embrace a large amount of new and valuable geographical and statistical information, especially in relation to our own country.

Respectfully submitted.

CHAS. P. DALY, *President.*

F. A. CONKLING,

Chairman of the Council.

HENRY CLEWS, *Treasurer.*

DR. E. R. STRAZNICKY,

Recording Secretary.

CHARTER OF INCORPORATION.

GRANTED APRIL 18TH, 1854.

The People of the State of New York, represented in the Senate and Assembly, do enact as follows :

SECTION 1. George Bancroft, Henry Grinnell, Francis Hawks, John C. Zimmerman, Archibald Russell, John Leavitt, William C. H. Waddell, Ridley Watrous, De Witt Bloodgood, M. Dudley Bean, Hiram Bland, Alexander J. Cotheal, Luther B. Wyman, John J. Calvin Smith, Henry V. Poor, Cambridge Livingston, Edmund Blunt, Alexander W. Bradford, and their associates, who are now or may become hereafter associated for the purposes of this act, are hereby constituted a body corporate by the name of The American Geographical and Statistical Society, for the purpose of collecting and diffusing geographical and statistical information.

§ 2. For the purposes aforesaid, the said Society shall possess the general powers and privileges, and be subject to the general liabilities, contained in the third title of the eighteenth chapter of the first part of the Revised Statutes, so far as the same may be applicable, and which have not have been modified or repealed ; but the real personal estate which the said Society shall be authorized to take, hold and convey, over and above its library and maps, charts, instruments and collections, shall at any time exceed an amount, the clear yearly income of which shall be ten thousand dollars.

§ 3. The officers of the said Society shall be a president, three vice-presidents, a corresponding secretary, a recording secretary, a librarian, and treasurer.

such other officers as may from time to time be provided for by the by-laws of the said Society.

§ 4. The said Society, for fixing the terms of admission of its members, for the government of the same, for changing and altering the officers above named, and for the general regulation and management of its transactions and affairs, shall have power to form a code of by-laws not inconsistent with the laws of this State or of the United States; which code, when formed and adopted at a regular meeting, shall, until modified or rescinded, be equally binding as this act upon the said Society, its officers and its members.

§ 5. The Legislature may at any time alter or repeal this act.

§ 6. This act to take effect immediately.

STATE OF NEW YORK, }
Secretary's Office. }

I have compared the preceding with the original law on file in this office, and hereby certify the same to be a correct transcript therefrom and of the whole of said original law.

Given under my hand and seal of office, at the city of Albany,
 [L. s.] this thirteenth day of April, one thousand eight hundred and
 fifty-four.

A. G. JOHNSTON,
Deputy Secretary of State.

AMENDED CHARTER.

PASSED APRIL 8TH, 1871.

STATE OF NEW YORK, No. 237, IN SENATE, *March* 1871.—Introduced by unanimous consent by Mr. Br read twice and referred to the Committee on Literature reported favorably from said committee, and come to the Committee of the Whole.

CHAP. 373.

AN ACT in relation to The American Geographical Statistical Society. Passed April 8th, 1871.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. The name or corporate title of the Society shall hereafter be, "The American Geographical Society of New York."

§ 2. The objects of the said Society shall be the advancement of geographical science ; the collection, classification and scientific arrangement of statistics, and results ; the encouragement of explorations for the thorough knowledge of all parts of the North American continent, and of other parts of the world which are imperfectly known ; the collection and diffusion of geographical, statistical and scientific knowledge by lectures, printed publications, or other means ; the keeping up of a correspondence with scientific and literary societies in every part of the world, for the collection and diffusion of information, and the interchange of charts, maps, public reports, documents and various publications ; the permanent establishment in the

New York of an institution in which shall be collected, classified and arranged, geographical and scientific works, voyages and travels, maps, charts, globes, instruments, documents, manuscripts, prints, engravings, or whatever else may be useful or necessary for supplying full, accurate and reliable information in respect to every part of the globe, or explanatory of its geography, physical and descriptive; and its geological history, giving its climatology, its productions, animal, vegetable and mineral; its exploration, navigation, and commerce; having especial reference to that kind of information which should be collected, preserved, and be at all times accessible for public uses in a great maritime and commercial city.

§ 3. The power given by the act hereby accorded to the said Society, to take, hold, convey, manage, and make use of its real and personal estate, shall be understood as authorizing said Society to take and hold by gift, grant, bequest, devise, subject to all provisions of law relative to devises and bequests by last will and testament, or purchase real estate to the value of three hundred thousand dollars, and to invest its income or its personal estate generally so as to produce a regular annual income sufficient for the accomplishment of the purposes set forth in the first section of this act; but said annual income shall not exceed twenty-five thousand dollars annually.

§ 4. The said Society shall make an annual report of its proceedings to the Legislature.

STATE OF NEW YORK, }
Office of Secretary of State, } ss.

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

Given under my hand and seal of office, at the city of Albany,
[L. s.] this twenty-second day of May, in the year one thousand eight hundred and seventy-one

DIEDRICH WILLERS, JR.,
Deputy Secretary of State.

BY-LAWS.

REVISED DECEMBER 9TH, 1869.

CHAPTER I.

TITLE.

The title of the Society is, "The American Geographical and Statistical Society." *

CHAPTER II.

OBJECTS.

The objects of the Society are, "the collecting and diffusing of geographical and statistical information."

CHAPTER III.

MEMBERS.

The Society shall consist of resident, non-resident, honorary, corresponding and *ex-officio* members.

1. Resident members are those residing in the city of New York, or its vicinity.

2. Non-resident members are those residing at a distance of twenty-five miles distant from the city.

3. Honorary members shall be chosen on account of their distinction in the science of geography or statistics, and not more than twelve of them shall hereafter be elected in any one year.

4. Corresponding members shall be chosen from those who have aided the advancement of geographical statistics.

5. *Ex-officio* members shall be foreign diplomatic representatives and consuls resident in the United States.

* Changed by act of April 8, 1871.

tates diplomatic representatives and consuls in countries.

dent, non-resident, corresponding, and honorary shall be elected as follows: All nominations of s shall be openly made in writing at a meeting ciety, or the Council, by a member thereof, and, with the name of the member making them, n the minutes. The persons thus nominated, proved by the Council and elected by the Society, payment of the initiation fee, if nominated as a r non-resident member, and without such pay- nominated as a corresponding or honorary become members of the Society accordingly. ons entitled to become *ex-officio* members of ty shall, on the recommendation of the Council, e Society constituted and declared to be such

name of any member of the Society may, on the ndation of the Council, and by a vote of two- the members present at a stated meeting of the oe dropped from the roll of its members.

CHAPTER IV.

INITIATION FEE AND ANNUAL DUES.

initiation fee, including the dues for the current ll be, for a resident member, ten dollars; and -resident member, five dollars; in both cases to mmediately on election.

annual dues thereafter shall be, for a resident five dollars; and for a non-resident member, rs and a half; both to be paid in advance.

r member of the Society, not in arrears, may for life all dues for membership, by the payment me, if a resident member, of fifty dollars; and, resident member, twenty-five dollars.

name of any resident or non-resident member ciety, neglecting for two successive years to pay

proposition thus presented, when seconded, and the motion thereon stated from the chair, shall be deemed in the possession of the Society, and open for discussion but may be withdrawn by the mover at any time before amendment or decision.

3. No member shall speak more than once upon the same question until all the other members present desiring to speak, shall have spoken; nor more than twice on any question without leave of the Society.

CHAPTER IX.

QUORUM.

At all meetings of the Society, nine members present shall constitute a quorum for the transaction of business.

CHAPTER X.

COMMITTEES.

All Committees authorized by the Society shall, unless otherwise specially ordered, consist of three members each, and be appointed by the presiding officer.

CHAPTER XI.

PRESIDING OFFICER.

At all meetings of the Society, on the arrival of the appointed hour and the presence of a quorum, the president, or, in his absence, one of the vice-presidents, or, in the absence of both, a chairman *pro tem.*, shall immediately take the chair, call the meeting to order and preside. He shall have only a casting vote. He shall preserve order and decide all questions of order subject to an appeal to the Society. He shall, unless otherwise specially ordered, appoint all committees authorized by the Society; and at every annual election, before the opening of the polls, he shall appoint tellers of the election.

CHAPTER XII.

SECRETARIES.

Foreign Corresponding Secretary.—It shall be the duty of the foreign corresponding secretary to conduct the foreign correspondence of the Society with individuals and corporate bodies in foreign countries.

Domestic Corresponding Secretary.—It shall be the duty of the domestic corresponding secretary to conduct the Society's general correspondence with individuals and corporate bodies in the United States.

The foreign and domestic secretaries shall keep, and the books to be provided for that purpose at the Society's rooms, true copies of all letters written by them on behalf of the Society; and shall preserve in files, at the said rooms, all letters received by the Society on the same account; and at each stated meeting of the Society or the Council they shall respectively read their correspondence and read the same, or such parts thereof as may be required.

In case of a vacancy in the office of either of the corresponding secretaries, or in the absence or disability of these officers, the duties of both may be performed by the other corresponding secretary.

The Society may designate a particular officer, or a committee to prepare a letter or letters on any occasion.

Recording Secretary. It shall be the duty of the recording secretary to give due notice of the time and place of all meetings of the Society, and to attend the meetings. He shall keep fair and accurate minutes of the proceedings of the Society, and record the same, when published, in the Society's Journal. He shall give immediate notice to the several officers and committees of the Society of all votes, orders, resolves, and proceedings of the Society affecting them, or appertaining to their respective duties. He shall prepare a list of the members

of the Society entitled to vote, to be handed to the teller before the opening of the polls at each annual election. He shall officially sign and affix the corporate seal of the Society to all diplomas, and other instruments or documents authorized by the Society or Council. He shall have charge of the corporate seal, charter, by-laws, records and general archives of the Society, except in far as they may be expressly placed under the charge of others. He shall certify all acts and proceedings of the Society, and shall notify the Council of the death, resignation or removal of any officer or member of the Society. He shall have charge of the rooms of the Society, and shall perform all such other and further duties as may from time to time, be devolved upon him by the Society or the Council. He shall receive for his services such salary or pecuniary compensation as shall be determined by the Society or the Council ; but neither in the Society nor the Council shall he have a vote on any question relating to or affecting his salary or pecuniary compensation. He, together with the Council, shall have charge and arrangement of the books, maps, and collections belonging to the Society. He shall cause to be kept in the rooms of the Society a registry of all donations to the library or collections of the Society, acknowledge their receipt by letter to the donors, and report the same, in writing, to the Society at its next stated meeting.

7. All documents relating to the Society, and under the charge of the secretaries respectively, shall be placed in such depositories in the rooms of the Society as the Council may provide and designate for that purpose.

CHAPTER XIII.

TREASURER.

The treasurer shall have charge of and safely keep the contracts, certificates of stock, securities, and muniments of title belonging to the Society. He shall collect the dues and keep the funds of the Society, and disburse

der the direction of the Council ; and so often as funds in the hands of the treasurer shall amount hundred dollars, he shall deposit the same, in the the Society, in some incorporated bank in the New York, to be designated for that purpose by Council ; and the said funds, thus deposited, shall be out of the said bank on the check of the treasurer, signed by the chairman of the Council, and only legitimate and authorized purposes of the Society. The treasurer shall, previous to the annual meeting of the Society, prepare and submit to the Council, for audit, a full account of his receipts and disbursements for the year of the Society during the past year ; and which account, duly audited, he shall present, with his report, to the Society, at its annual meeting.

CHAPTER XIV.

COUNCIL.

The Council shall have the management and control of the affairs, property, and funds of the Society ; and designate an incorporated bank in the city of New York where the said funds shall, from time to time as required, be deposited by the treasurer.

The Council may frame its own by-laws not inconsistent with the Charter or by-laws of the Society.

The Council may, from time to time, determine the salary or other compensation of the recording secretary ; and may appoint the necessary agents, clerks, and servants for the Society, with such powers, duties, privileges, and compensation as it may from time to time determine, and may at pleasure revoke such appointments, and appoint others in their stead.

The Council shall have power to fill, for the unexpired term, any vacancy that may occur in any of the offices of the Society.

The Council shall have power, at its discretion, to declare vacant the seat of any member of its own body (except

the president and vice-presidents) who shall have absent from its meetings for three successive months and also, by a vote of a majority of the whole Council, to remove from its own body any member thereof for any cause; but in such case it shall be the duty of the Council to report every such vacancy or removal to the Society at its next stated meeting thereafter, when such vacancy shall be subject to review by the Society.

6. It shall not, without an approving vote of the Society at a stated meeting thereof, make any contract whereby a liability in amount above one thousand dollars may be incurred by the Society, nor, without a vote, make any sale or disposition of the property of the Society exceeding that sum in value.

7. The Council may, in its discretion, remit the initiation fee or annual dues of any member of the Society.

8. No member of the Council, except the recording secretary, shall receive any salary or pecuniary compensation for his services.

9. The Council shall hold stated meetings for the transaction of business, at least once in every month, except the months of July, August, and September.

10. At all meetings of the Council, five members present shall constitute a quorum for the transaction of business.

CHAPTER XV.

GENERAL PROVISION AS TO DEBT.

No debt on account of the Society, beyond the funds in the treasury for its payment, shall, for any purpose, at any time be incurred; and if at any time it should appear that there are resting upon the Society pecuniary obligations beyond the funds in the treasury for liquidation, no appropriation of funds from the treasury, whatever, except for the necessary current expenses of the Society, shall be made until the said pecuniary obligations shall be fully discharged, or the funds necessary

extinction shall have been set apart for that

CHAPTER XVI.

ALTERATION OF THE BY-LAWS.

Any alteration in the by-laws of the Society shall be less openly proposed at a stated meeting of the Society, and entered on the minutes, with the name of the member proposing the same, and adopted by the Society at the next subsequent stated meeting, by a vote of two-thirds of the members present.

CHAPTER XVII.

ADOPTION OF THE BY-LAWS.

The foregoing are hereby adopted and declared to be the by-laws of the Society; and all by-laws of the Society previously adopted are hereby rescinded, and declared to be void.

HONORARY, CORRESPONDING, AND RESIDING MEMBERS.

HONORARY MEMBERS.

His Imperial Highness the Grand Duke Constantine of Russia, President of the Imperial Geographical Society, St. Petersburg, Russia.	of Sciences of Russia, St. Petersburg.
FREMONT, John Chas., LL. D., New York.	PETERMANN, Prof. Augustus, Gotha, Germany.
GRINNELL, Henry, New York.	QUETELET, Lambert A. Jacques, President of the Commission of Statistics, Belgium, Brussels.
LAYARD, Austin Henry, D. C. L., London, England.	RAWLINSON, Sir Henry Charles D. C. L., President Royal Geographical Society, London, England.
LIVINGSTONE, David, D. D., LL. D.	STRUVE, Otto Wilhelm von, Petersburg, Russia.
MCCLEINTOCK, Francis Leopold, LL. D., London, England.	
MIDDENDORFF, Adolph Theo. von, Secretary of the Imperial Academy	

CORRESPONDING MEMBERS.

ABBE, Prof., Cleveland, Cincinnati Observatory, Ohio.	BARTLETT, John Russell, Providence, R. I.
ALEXANDER, John Henry, Baltimore, Md.	BASTIAN, A., M. D., President Royal Geographical Society, Berlin.
ALTAMIRANO, Señor Don Ignacio, Mexico.	BAZ, Señor Don Juan José, Governor of the District of Mexico.
ALVORD, Benjamin, U. S. A., Fort Vancouver, Washington Territory.	BECKER, M. A., General Secretary Imperial Geographical Society, Vienna.
ARCHBALD, Andrew B., Paris, France.	BEHM, Dr. E., Gotha.
BARANDA, Señor Joaquin, Gov. of Campeche, Mexico.	BRADLEY, Rev. Daniel B., St. Louis, Mo.
BARCLAY, James T., M. D., Jerusalem, Syria.	BRIGHT, John, M. P., London, England.
BARNARD, Henry, LL. D., Hartford, Conn.	BUSHNELL, Rev. Albert, Cape Town, Equatorial Africa.
	CARLOS, Señor Don José, Washington, D. C.

Paul, Geneva, Switzer-	HINES, Wm. E., U. S. Consul, Zan-
Hon. Wm., Edinburgh,	zibar, Africa.
W., F. R. G. S., London,	HITCHCOCK, Prof. C. H., Ph. D., Han-
or Manuel, Governor of	over, N. H.
Mexico.	HOCHSTETTER, Dr. Ferdinand von
Hon. J. B., Rio Janeiro,	Professor in the University of
es W., San Francisco,	Vienna, Austria.
as E., Rome, Italy.	HOUGH, Franklin B., M. D., Albany,
, Geo. P., Madison, Wis.	N. Y.
James, Hartford, Conn.	HUMPHREYS, Brig.-Gen. A. A., U. S.
man, Madison, Wis.	A., Chief of Engineers, Washing-
K., Lieut. U. S. N.,	ton, D. C.
n, D. C.	HUNT, Prof. T. Sterry, LL. D., Bos-
William H., Hanover, N.H.	ton, Mass.
H., U. S. A., Washing-	JAMESON, Wm., M. D., Quito.
Franz, late Secretary of	JULIAN, Alexis A., Island of Som-
ial Royal Geographical	brero, W. I.
Vienna, Austria.	KENNEDY, Jos. Camp. Griffith, late
J. T., Commissioner,	Superintendent of the U. S. Census,
n, D. C.	Washington, D. C.
niel Coit, LL. D., Presi-	KING, Clarence, Commissioner, Wash-
rsity of California, Oak-	ington, D. C.
as J., Washington, D.C.	LACHLAN, R., Cincinnati, Ohio.
er Halsey, M. D., Micro-	LAMANSKY, Eugen von, Imperial
nds.	Russian Geographical Society, St.
Arnold Henry, LL. D.,	Petersburg, Russia.
N. J.	LAPHAM, Increase A., Milwaukee,
, U. S. Commissioner,	Wis.
n, D. C.	LEAVENWORTH, Elias W., Syracuse,
William Neilson, LL. D.,	N. Y.
Geographical and Statis-	LESSEPS, Ferdinand de, Suez, Egypt.
y, Dublin.	LONG, Stephen H., Colonel U. S. A.,
of. F. V., U. S. Geologi-	Louisville, Ky.
of the Territories.	LYON, Hon. Caleb, Idaho.
Friedrich von, Member	MCCARTEE, Divie Bethune, M. D.,
erial Royal Geographi-	Hong Kong, China.
Vienna, Austria.	McCLELLAND, Robert, Wash., D. C.
s. Curtis, M. D., Siam.	MACLAY, Wm. W., U. S. N., Annap-
	olis, Md.
	MALTE BRUN, V. A., Honorary Sec-
	retary of the Geographical Society,
	Paris, France.
	MANSFIELD, Edward D., Commis-
	sioner of Statistics of Ohio, Co-
	lumbus.

- MARISCAL, Señor Don Ignacio, of Mexico, Washington, D. C.
- MARSH, Hon. George P., LL. D., U. S. Minister, Florence, Italy.
- MARTIN, R. Montgomery, F. R. G. S., London, England.
- MARTIN, Rev. Wm. A. P., D. D., Professor of the Imperial College at Pekin, China.
- MASON, Charles, Washington, D. C.
- MAUNOIR, Charles, General Secretary Geographical Society, Paris.
- MAURY, Louis Ferdinand Alfred, Geographical Society, Paris, France.
- NAPRSTEK, Vojta, Prague, Austria.
- NEGRI, Cristoforo, President Italian Geographical Society, and Chief of the Consular Bureau, Foreign Office, Florence, Italy.
- NEWMARCH, Wm., Hon. Secretary of the Statistical Society of London, England.
- NORDENSKJÖLD, Prof. A. E., Stockholm, Sweden.
- NORMAN, Benj. M., New Orleans, La.
- NYE, Gideon, U. S. Consul, Canton, China.
- OLIVIERA, B. de, Rio Janeiro, Brazil.
- OLRIK, C. S. M., Royal Danish Inspector at Godhavn, N. Greenland.
- PALAZIOS, Gen. Vicente Riva, Mexico.
- PALMER, Aaron H., Washington, D. C.
- PARDO, Señor Don Emilio, Mexico.
- PAYNO, Señor Don Manuel, Vice-President Geographical and Statistical Society, Mexico.
- PEIRCE, Prof. Benj., Ass't Secretary Smithsonian Institution, Washington, D. C.
- PENNA, Señor Terreira, Para, Brazil.
- PERKINS, E. H., U. S. Consul, St. Croix, W. I.
- PIMENTEL, Dr. Joaquin Xavier de Oliveira, Santarem Para, Brazil.
- PINHEIRO, J. C. Fernandes, Brazil.
- POESCHE, Theo., Washington.
- RAE, John, M. D., F. R. G. S., London, England.
- RIO DE LA LOZA, Señor Don I., President Geographical and Statistical Society, Mexico.
- ROBERTS, Gen. W. Milne, Engineer Northern Pacific road.
- RODGERS, John, Rear-Admiral.
- ROMERO, Hon. Mathias, Minister Finance of Mexico.
- ROTHBOCK, Dr. J. T., Wilkes-Barre, Pa.
- SAINT-MARTIN, Vivien de, President Geographical Society, Paris.
- SAPUCACHY, M. le Viscount, Rio Janeiro, Brazil.
- SCHADE, M. D., Louis, Washington, D. C.
- SCHLAGINTWEIT-SÄKÜNLÜND, Herman von, Munich.
- SCHLAGINTWEIT-SÄKÜNLÜND, Robert von.
- SEWARD, Hon. Wm. H., Auburn, N. Y.
- SEYMOUR, Hon. Horatio, Utica, N. Y.
- SHANKLAND, Thomas, U. S. Island of Mauritius.
- SIMMONS, D. B., M. D., Yeddo.
- SMITH, Edward R., Washington, England.
- STEVENS, Henry, F. R. S., London.
- TEJADA, Don Sebastian I., Mexico.
- VAN BUREN, General Thomas, Commissioner-General, New York.
- WARNE, Joseph, Oxford, England.
- WHEELER, G. M., Lieutenant, Corps of Engineers, Washington, D. C.

RESIDENT AND NON-RESIDENT MEMBERS, UP TO NOVEMBER 1st, 1873.

—Those having L. M. preceding their names have compounded for life.

- Abbe, George W., 8 Pine street.
- Acton, Thomas C., 32 Wall street.
- Adams, Rev. C. C. Manhattanville, N. Y.
- Aguiar, A. W. F. de, 13 Broadway.
- Alburtis, Edward K., 427 W. Twenty-first street.
- Allen, Horatio M., 59 Wall street.
- Allen, Jerome, 3 East Thirty-third street.
- Alsop, Joseph W., 32 Washington square W.
- Appleton, William H., 549 Broadway.
- L. M. Arnold, Daniel H., 435 West Twenty-third street.
- Arnoux, William H., 271 Broadway.
- Asher, John R., 114 East Twenty-third street.
- Aspinwall, William H., 33 University place.
- Atterbury, Rev. Wm. Wallace, Bible House.
- Auchmuty, Richard Tylden, 61 University place.
- L. M. Aymar, William, 37 West Twentieth street.
- Badeau, Gen. Adam.
- Bailey, James Muhlenberg, 11 West Twenty-eighth street.
- Bailey, N. P., 11 West Twenty-eighth street.
- Baker, Francis, 69 Worth street.
- Ball, Henry, 565 Broadway.
- L. M. Bancroft, Hon. Geo., U. S. Ambassador, Berlin, Germany.
- Banks, David, Jr., 144 Nassau street.
- Banvard, John, Flushing, L. I.
- Banyer, Goldsboro, 13 West Twenty-first street.
- Barbour, Chief Justice, John M., 22 West Forty-fifth street.
- Barlow, Gen. Francis C., 21 Park row.
- Barlow, S. L. M., 35 William street.
- Barney, Danford N., 82 Broadway.
- L. M. Barney, Hiram, 111 Broadway.
- Barrett, William C., 20 Nassau street.
- Barrow, John W., 350 Broadway.
- Beardslee, Rufus G., 106 Broadway.
- Beckwith, N. M., 253 Fifth avenue.
- Beebe, Hon. Welcome R., 68 Wall street.
- Beckman, James W., 5 East Thirty-fourth street.
- Bell, George, 20 West Twentieth street.
- Bellows, D. D., Rev. Henry W., 232 East Fifteenth street.
- L. M. Belmont, August, 50 Wall street.

Year of Election.		
1868	40	Benedict, Erastus C., 64 Wall street.
1868		Bennett, James Gordon, 425 Fifth avenue.
1870		Bergh, Henry, 429 Fifth avenue.
1868		Bernheimer, Adolph, 101 Franklin street.
1859		Bernheimer, Isaac, 320 Broadway.
1868		Bernheimer, Leopold, 145 West Forty-second st.
1868		Bernheimer, Simon, 218 West Fourteenth street.
1856		Berry, Richard, 291 Broadway.
1869		Bickmore, Prof. Albert S., M. A., Museum, Cen
1869		Bierstadt, Albert, 51 West Tenth street.
1868	50	Bill, Edward.
1870		L. M. Bishop, T. Alston, 65 Fifth avenue.
1871		Bixby, John M., 461 Fifth avenue.
1856		Black, William, 565 Broadway.
1868		Blake, Charles F., 19 Park place.
1868		Bleecker, T. B., Jr., 61 William street.
1872		Blodgett, Daniel C., 61 Fifth avenue.
1860		Blodgett, William T., 252 Pearl street.
1869		Bloomfield, William, 182 Nassau street.
1859		Boardman, Andrew, 322 Broadway.
1870	60	Body, John E., 1 State street.
1871		Bolton, Henry C., Ph. D., 59 West Fifty-first str
1859		Boorman, J. M., Cliff House, Tarrytown, N. Y.
1857		Booth, Wm. A., 100 Wall street.
1856		Booth, Wm. T., 100 Wall street.
1870		Botta, Vincenzo, 25 West Thirty-seventh street.
1869		Bradford, William, 51 West Tenth street.
1868		Brady, Hon. John R., 19 West Thirty-third str
1856		Brevoort, J. Carson, Brooklyn, N. Y.
1872		Bridgham, S. W., 49 West Twenty-third street.
1862	70	Bristed, C. Astor.
1870		Brooks, Sidney, Newport, R. I.
1866		Brown, Ebenezer H., 121 Nassau street.
1859		L. M. Brown, James, 59 Wall street.
1858		Brown, James M., 59 Wall street.
1856		Brown, Stewart, 59 Wall street.
1872		Brown, Walston H., 59 Liberty street.
1872		L. M. Bryce, James, 119 East Eighteenth street.
1869		Burdett, Charles P., 174 Water street.
1871		Butler, Benj. F., 45 Exchange place.
1858	80	Butler, Charles, 12 Wall street.
1870		Butler, Cyrus, 24 Cliff street.
1861		Butterfield, Gen. Daniel.
1868		Carter, James C., 66 Wall street.

- Carter, Robert, 580 Broadway.
 Cary, Lucius E., 90 Pine street.
 M. Cary, William F., 90 Pine street.
 Casey, Joseph J., 2 Irving place.
 Casserly, Bernard, Manhattan Club.
 M. Catlin, N. W. Stuyvesant, 45 William street.
 Chapin, Rev. E. H., D. D., 44 East Thirty-third street.
 Chapman, Jos. H., 51 Wall street.
 Charlick, Oliver, 254 West Thirty-fourth street.
 Choate, William G., 49 Wall street.
 Churchill, Franklin H., 83 Pine street.
 Cisco, John J., 59 Wall street.
 Clark, E. V., Century Club.
 Clift, Smith, 15 West Twenty-ninth street.
 Clews, Henry, 83 Wall street.
 Colegate, Charles C., 55 John street.
 M. Colton, Joseph H., 73 Beekman street.
 Conger, Hon. Abraham B., 132 Nassau street.
 Conger, Clarence R., 19 West Twentieth street.
 Conklin, Eugene E., 432 Canal street.
 Conklin, William A., Museum, Central Park, N. Y.
 M. Conklin, Hon. F. A., 170 Broadway.
 M. Cooley, James E., 78 Fifth avenue.
 Cooper, Edward, 17 Burling slip.
 Cooper, Peter, 17 Burling slip.
 Corse, Israel, 104 Fifth avenue.
 Coulter, Samuel, 83 Chambers street.
 Cowdin, Hon. Elliot C., 98 Grand street.
 Cox, James F., 52 William street.
 Cox, Hon. Samuel S., 18 East Twelfth street.
 Crain, Dunham Jones, 81 Irving place.
 Crawford, S. W., Maj.-Gen. U. S. A., Chambersburg, Pa.
 Crooks, Ramsey, 57 Front street.
 Cruickshank, Jas., LL. D., 164 S. Oxford st., Brooklyn, N. Y.
 M. Cullum, Geo. W., Maj.-Gen. U. S. A., corner Greene and
 Houston streets.
 Currie, Gilbert E., 153 Broadway.
 Curtis, Lewis, 40 University place.
 Curtis, Hon. William E., 209 East Fifteenth street.
 Daly, Chief Justice Charles P., LL. D., 84 Clinton place
 Daly, Hon. Joseph F., 214 West Twenty-fifth street.
 Darling, William A., 69 West Forty-fourth street.
 Dash, John B., 47 East Nineteenth street.
 Davies, Hon. Henry E., 120 Broadway.
 Davis, Alex. J., 34 Waverley place.

Year of Election.		
1870		Davison, Edward F., 128 Pearl street.
1868		Dawson, H. B., Morrisania, N. Y.
1868	130	De Costa, Rev. B. F., 42 East Nineteenth street.
1873		Delano, Franklin H., 35 Broadway.
1867	L. M.	Dennis, Charles, 51 Wall street.
1873	L. M.	De Peyster, Frederick, 67 University place.
1864		Detmold, Christian E., 111 Broadway.
1856		Detmold, William, M. D., 38 East Ninth street.
1868		De Voe, Col. Thomas F., 104 West Thirteenth street.
1859		Dickerson, E. N., 62 East Thirty-fourth street.
1864		Diehl, Israel S., 58 Reade street.
1870		Dinsmore, Wm. B., 59 Broadway.
1869	140	Dodge, Robert, 12 Wall street.
1856		Dodge, Hon. William E., 13 Cliff street.
1856		Dodge, William E., Jr., 13 Cliff street.
1856		Doremus, R. Ogden, M. D., 227 Fourth avenue.
1856		Douglas, Andrew E., 89 Wall street.
1868		Draper, Henry, M. D., 271 Madison avenue.
1873		Drone, Eaton S., 307 East Eighteenth street.
1870		Drowne, Henry T., 52 Wall street.
1868		Du Chaillu, Paul B., 43 East Thirtieth street.
1856		Duncan, Wm. Butler, 11 Nassau street.
1855	150	Dunshee, Henry W., 142 West Tenth street.
1870		Durant, Thomas C., M. D., 20 Nassau street.
1868		Duyckinck, Evert A., 20 Clinton place.
1868		Dwight, Prof. Theo. W., LL. D., 43 Lafayette place.
1868		Edmonds, Hon. J. W., 271 Broadway.
1873		Edwards, Jonathan, 204 West Thirty-eighth street.
1873		Ellinger, Moritz, 11 Ann street.
1852		Elliott, S. M., M. D., 33 Waverley place.
1856		Elsworth, Henry, 228 West Fourteenth street.
1868		Emmet, Thomas Addis, M. D., 91 Madison avenue.
1869	160	Emott, Hon. James, 20 Nassau street.
1864		Evans, Walton W., 47 Exchange place.
1859		Evarts, Hon. Wm. M., 52 Wall street.
1853		Eyre, Henry S. P., 174 Pearl street.
1864		Faile, Thomas H., 130 Water street.
1856		Fernbach, Henry, 346 Broadway.
1856	L. M.	Field, B. H., 127 Water street.
1854	L. M.	Field, Cyrus W., Gramercy place.
1856		Field, David Dudley, 4 Pine street.
1869		Field, Dudley, 4 Pine street.
1860	170	Field, Rev. H. M., 5 Beekman street.

- L. M. Field, Hickson W., Europe.
 Fish, Hon. Hamilton, 104 East Tenth street.
 Fliess, William M., 47 Broadway.
- L. M. Fogg, William H., 32 Burling slip.
 Foote, Horace A., 99 Water street.
 Forsyth, Rev. John, D. D., West Point, N. Y.
 Fowler, Edward P., M. D., 2 East Thirty-third street.
 Friedmann, Hon. John J., 119 West One Hundred and
 Twenty-fifth street.
 Frohwein, Theobald, 218 Stanton street.
 Fry, Horace B., 12 Wall street.
 Furniss, William, New York, P. O. box 560.
- Gaillard, Joseph, 34 South street.
 Gambrill, C. D., 57 Broadway.
 Ganse, Rev. H. D., D. D., 155 East Sixty-first street.
 Gardner, A. K., M. D., 237 East Thirteenth street.
 Garvin, Hon. Sam'l B., 58 West Thirty-eighth street.
 Gavit, John E., 142 Broadway.
- L. M. Gebhard, William H., Union Club, Fifth avenue.
 Gerard, James W., 17 Gramercy Park.
 Gerard, James W., Jr., 45 William street.
- L. M. Gerry, Elbridge T., 164 Nassau street.
 Gescheidt, Louis A., M. D., Hastings-on-Hudson, N. Y.
 Gibbs, George, Newport, R. I.
 Gilbert, Clinton, 73 Sixth avenue.
 Gillies, James W., 237 Washington street.
 Gilman, William C., 46 Pine street.
 Gilmore, Maj.-Gen'l Quincy A., U. S. A., Army building,
 corner Greene and Houston streets.
- Godon, Rear-Admiral Sylvanus W., U. S. N., in Europe.
 Goldman, Marcus, 4 West Forty-seventh street.
 Goldsmith, Jacob, 320 Broadway.
 Goulding, B. L., 347 Fourth avenue.
 Graham, Gen. C. K., 119 Broadway.
- L. M. Graham, James L., Jr., 108 Broadway.
 Graham, R. M. C., 108 Broadway.
 Green, Andrew H., Fifth avenue.
- L. M. Green, John C., 71 South street.
 Greene, Gen. G. S., 29 West Thirty-second street.
- L. M. Greene, John W., M. D.
 Greenwood, Isaac J., 214 West Fourteenth street.
 Grinnell, Henry, 45 William street.
 Grinnell, Moses H., 20 Union square.
 Grinnell, Robert M., 17 Bond street.

Year of
Election.

1859		L. M. Griswold, George, 72 South street.
1871		Groom, Wallace P., 350 Pearl street.
1856		Guernsey, Egbert, M. D., 18 West Twenty-third street.
1864		Guernsey, R. S., M. D., 150 Broadway.
1869		Habicht, C. E., London.
1869		Hadden, John A., 38 Chambers street.
1871		Hall, Hon. A. Oakey, 13 West Forty-second street.
1868	220	Hall, Elial F., 37 Nassau street.
1869		Hallock, Mrs. Frances, 140 East Fifteenth street.
1869		Halsted, William M., 378 Broadway.
1872		L. M. Hamersley, John W., 255 Fifth avenue.
1871		Hamilton, Alexander, Jr., 17 Washington square.
1864		Hammond, Henry B., 20 Nassau street.
1871		Hand, Clifford A., 51 Wall street.
1870		Harris, R. Duncan, 91 Madison avenue.
1868		L. M. Harris, Hon. Townsend, Union Club, Fifth avenue.
1870		Harrison, Prof. Thomas F., 146 Grand street.
1868	230	Hartt, Prof. Chas. F., M. A., Ithaca, N. Y.
1859		L. M. Havemeyer, John C., 335 West Fourteenth street.
1870		Havens, Charles G., 20 Exchange place.
1870		Hawkes, Prof. W. Wright, 27 S. William street.
1872		Hawkins, Dexter A., 5 West Thirty-fourth street.
1872		Hawley, E. Judson, 47 Fifth avenue.
1868		Hayes, Isaac I., M. D., 51 West Tenth street.
1869		Hays, William J., 51 West Tenth street.
1869		Hazard, Rowland R., Jr., 110 Broadway.
1868		Hegeman, William, 203 Broadway.
1868	240	Hegeman, William A. Ogden, 55 Pine street.
1859		Henderson, John C., 464 Broome street.
1856		Herring, Silas C., 251 Broadway.
1870		Hess, Julius, 20 Exchange place.
1856		Hewitt, Abram S., 17 Burling alp.
1868		Hewlett, John D., 51 Wall street.
1872		Hoffman, William B., 48 West Twenty-second street.
1869		Hoffmann, Friedrich, Ph. D., 64 Sixth avenue.
1868		Hoguet, Robert J., 112 Duane street.
1872		Holbrook, Levi, P. O. box 586.
1870	250	Holmes, William H., 59 Beekman street.
1858		L. M. Holton, David P., M. D., 148 East Seventy-eighth street.
1868		Hoppin, William J., 59 Pine street.
1868		Hoyt, David, 286 Cherry street.
1865		Hull, Amos G., 21 Park row.
1856		Hunt, Wilson G., 82 White street.
1856		Hunter, James, 220 East Tenth street.

Huntington, Daniel, 49 East Twentieth street.
 Hurlbert, William H., World office.
 Hutchings, Hon. Robert C., 48 West Thirty-eighth street.
 Hutchins, Waldo, 40 Wall street.
 Hayshe, Wentworth, 59 Wall street.

Ireland, John B., 200 Broadway.

Jackson, H. A., 82 Wall street.
 Jacob, Ephraim A., 322 Broadway.
 James, Frederick P., 400 Fifth avenue.
 Jarvis, Nathaniel, Jr., 124 West Twenty-third street.
 L. M. Jay, Hon. John, U. S. Ambassador, Vienna, Austria.
 Joachimsen, Jos. P., 240 Broadway.
 Johnson, Bradish, 117 Front street.
 Johnson, Hezron A., 26 Pine street.
 Johnson, Henry W., 22 East Thirty-fifth street.
 Johnston, James B., 90 Broadway.
 Johnston, John T., 119 Liberty street.
 Jones, Charles C., Jr., 61 Wall street.
 L. M. Jones, John D., 51 Wall street.
 Jones, Walter R. T., 65 Wall street.
 Joy, Prof. Chas. A., Columbia College.

Kane, J. Grenville, 346 Broadway.
 Kaufmann, Sigismund, 39 Nassau street.
 Kearny, Edward, 139 Front street.
 Kelley, Lieut. J. D. J., U. S. N., New York.
 Kelly, Eugene, 87 West Thirty-fourth street.
 Kendrick, Col. Henry L., U. S. A., West Point, N. Y.
 Kennedy, John A., 135 West Twenty-second street.
 Kennedy, Robert L., 29 Nassau street.
 King, George, 5 Mercer street.
 King, Oliver K., 81 Broadway.
 Kingsland, A. C., 114 Fifth avenue.
 Kirkland, Hon. Charles P., 21 Nassau street.
 Klamroth, Albert, 64 St. Mark's place.
 L. M. Knapp, Shepherd, 83 Wall street.
 Kühne, Frederick, 118 Broadway.

Lambert, E. W., M. D., 120 Broadway.
 L. M. Lane, Smith E., 169 Broadway.
 Lanier, J. F. D., 29 Pine street.
 Larremore, Hon. Richard L., LL. D., 39 East Sixtieth st.

Year of
Election.

1859		L. M. Lathers, Richard, 89 William street.
1868		Lawrence, Abraham R., 25 Nassau street.
1869		L. M. Lawrence, John S., 117 William street.
1871	300	Lee, Ambrose, 877 Broadway.
1854		Lefferts, Marshall, 61 Broadway.
1859		Lenox, James, 53 Fifth avenue.
1868		Leonard, William H., 57 East Fifty-third street.
1868		Leslie, Frank, 537 Pearl street.
1871		Letson, Robert S., 68 South street.
1872		L. M. Libbey, William, 361 West Twenty-third street.
1852		L. M. Livingston, Cambridge, 145 Broadway.
1870		Loew, Hon. Frederick W., 618 Lexington avenue.
1857		Low, A. A., 31 Burling slip.
1873	310	Lydig, David, 62 Seventh avenue.
1870		Lyman, Edward H. R., 31 Burling slip.
1863		Mackie, Robert, 24 Beaver street.
1868		MacKellar, William, 164 Nassau street.
1871		MacLay, Robert, 432 Canal street.
1869		MacLay, Hon. William B., 68 Second avenue.
1872		N. R. Macmillan, Frederick.
1868		McClure, George, 15 Union square.
1871		McCreery, James A., 202 Broadway.
1868		McLean, James M., 156 Broadway.
1868	320	McLean, Samuel, 133 Duane street.
1870		McMillan, Charles, M. D., 4 East Thirty-fourth street.
1859		McMullen, John, 1212 Broadway.
1856		Manners, David S., Jersey City, N. J.
1870		Marbury, Francis F., 64 Wall street.
1872		L. M. Marie, Peter, 48 West Nineteenth street.
1868		Marsh, Luther R., 170 Broadway.
1863		Marshall, Chas. H., 38 Burling slip.
1870		Marston, Charles E., 7 New street.
1868		Martin, Isaac P., 31 Nassau street.
1872	330	Martin, William R., 70 West Thirty-fifth street.
1869		Martine, Randolph B., 31 Nassau street.
1868		Marquand, Henry G., 43 Wall street.
1868		Matsell, George W., 164 Nassau street.
1872		L. M. Matthews, Edward, 4 Broad street.
1872		Maury, Rev. Mytton, Fordham, N. Y.
1863		May, Lewis, 1 New street.
1871		Mayo, William S., M. D., 208 Fifth avenue.
1872		Meeker, H. G., 454 Lexington avenue.
1870		Menzies, William, 31 Nassau street.
1863	340	Merrick, John S., 805 Broadway.

- Meyer, F. William, 35 West Twenty-first street.
 Miles, Edward D., National Park Bank.
 Miller, Charles R., 607 Broadway.
 Miller, Edmund H., 20 Broad street.
 Miller, Morris S., 265 Broadway.
 Mitchell, Grove P., 51 Wall street.
 Mitchell, Samuel A., 62 West Fourteenth street.
 Monroe, Ebenezer, 565 Broadway.
 Montgomery, Archibald G., Jr., 35 Wall street.
 L. M. Moore, Frank, Paris.
 L. M. Moore, George H., LL. D., New York Historical Society.
 Moore, Henderson, 43 Mercer street.
 L. M. Moore, W. H. H., 51 Wall street.
 Moreau, John B., 14 Second street.
 Morgan, Hon. E. D., 54 Exchange place.
 Morgan, William D., 70 South street.
 Morris, Harry M., 49 West Thirty-eighth street.
 Morris, Robert R., New Rochelle, N. Y.
 Morrison, Henry, 200 Broadway.
 Morton, Levi P., 30 Broad street.
 L. M. Mount, Richard E., 335 Broadway.
 Mount, William S., 150 Duane street.
 Mumford, John P., 2 East Thirty-seventh street.
 Murdock, U. A., 313 Fifth avenue.
 Murphy, Hon. Henry C., Brooklyn, N. Y.
 Murphy, Hon. Thomas, 38 East Thirty-ninth street.
 Murray, D. Colden, 62 South street.
 Myer, Bvt. Maj.-Gen. Albert J., U. S. A., Washington, D. C.
 Myers, Alfred G., 244 East Thirteenth street.
 Myers, Col. T. Bailey, 127 Mercer street.
 Neilson, William H., 70 Broadway.
 Newberry, Prof. John S., M. D., Columbia College.
 Niblo, William, 50 West Twenty-eighth street.
 Nichols, Effingham H., 9 Pine street.
 L. M. Norrie, Adam, 303 Fifth avenue.
 Norton, Henry G., 26 Park place.
 O'Callaghan, Edmund B., LL. D., 651 Lexington avenue.
 O'Connor, Charles, 61 Wall street.
 Ogden, Alfred, 51 Wall street.
 Ogden, William B., 52 Wall street.
 Opdyke, George, 25 Nassau street.
 O'Rielly, Henry, 1250 Fourth avenue.

Year of
Election.

1871		Palmer, Courtlandt, Jr., 346 Broadway.
1872		Parish, Henry, 52 Wall street.
1869		Parker, John A., 39 William street.
1868		Parton, James, 303 East Eighteenth street.
1868		Paulison, John P., 52 Wall street.
1871		Pavy, Octave.
1871	390	Peabody, Charles A., 167 Broadway.
1869		Perault, George, 292 Pearl street.
1868		Pfeiffer, Carl, 113 Broadway.
1860	L. M.	Phelps, Royal, 45 Exchange place.
1868		Philbin, Stephen, 82 Clinton place.
1862		Phillips, George W., 120 Broadway.
1855		Pierrepont, Hon. Edwards, 16 Wall street.
1852	L. M.	Pierrepont, Henry E., 30 Broadway.
1852	L. M.	Poor, Henry V., 68 Broadway.
1860		Potter, Hon. Clarkson N., 61 Wall street.
1871	400	Potter, Howard, 61 Wall street.
1868		Powers, William P., 74 Broadway.
1852	L. M.	Prime, Frederick, 26 Broad street.
1859	L. M.	Prime, Frederick E., 26 Broad street.
1872		Prime, Temple, 26 Broad street.
1868		Prime, Wm. C., 38 East Twenty-third street.
1869		Pruyn, Hon. John V. L., LL. D., Albany, N. Y.
1868		Pumpelly, Raphael.
1859	L. M.	Punnett, James, 46 Wall street.
1859		Purser, George H., 82 Nassau street.
1870	410	Putzel, Mayer, 34½ Pine street.
1857		Pyne, Percy R., 44 South street.
1856		Randolph, A. D. F., 770 Broadway.
1859		Rapallo, Hon. Charles A., 17 West Thirty-first street.
1868		Raven, Anton A., 51 Wall street.
1859	L. M.	Reckendorfer, Joseph, 59 John street.
1868		Redfield, Amasa A., 20 Nassau street.
1873		Reed, Mrs. Sylvanus, 6 East Fifty-third street.
1873		Remington, A. G.
1856		Remsen, William, 26 Waverley place.
1868	420	Rhineland, Wm. C., 14 Washington square North.
1873		Rich, John B., M. D., 35 East Tenth street.
1856		Richards, Joseph W., M. D., 12 Clinton place.
1868		Richmond, Henry A., Buffalo, N. Y.
1856		Riker, John H., 135 East Forty-sixth street.
1872	L. M.	Robbins, Chandler, 116 West Twenty-first street.
1868		Roberts, Marshall O., 126 Warren street.
1871		Robinson, Douglas.

- Robinson, Hon. Hamilton W., 5 East Sixty-fifth street.
 Roelker, Bernard, 57 Pine street.
- 130 L. M. Rogers, C. B., 280 Fifth avenue.
 Rogers, David L., M. D., 454 Lexington avenue
 Roosevelt, Theodore, 94 Maiden lane.
 Rose, Cornelius, 320 Broadway.
 Ruggles, Hon. Samuel B., 6 Wall street.
 Russell, John A., 264 Sixth avenue.
 Rutherford, John A., 342 East Thirteenth street.
 Rutherford, L. M., 104 East Tenth street.
- Sanger, A. L., 243 Broadway.
 Savage, John, Morrisania, N. Y.
- 140 Schafer, Samuel M., 15 Broad street.
 Schafer, Simon, 15 Broad street.
- L. M. Schell, Augustus, 40 Wall street.
- L. M. Schell, Richard, 22 West Twenty-first street.
 Schermerhorn, W. C., 68 Wall street.
 Schieffelin, S. A., Geneva, N. Y.
 Schmidt, Oscar E., 22 Burling slip.
 Schnerr, Constant, 40 Burling slip.
 Schuchardt, Frederick, 40 Exchange place.
 Schultz, Jackson S., 343 Pearl street.
- 150 L. M. Schultz, John H., 9 Spruce street.
 Sears, Herman B., 18 Maiden lane.
 Seligman, James, 21 Broad street.
 Seligman, Jesse, 21 Broad street.
 Seligman, Joseph, 21 Broad street.
 Sewall, Henry F., 78 South street.
 Seward, Clarence A., 29 Nassau street.
 Shaler, Maj.-Gen. Alex'r, N. G. S. N. Y., 346 West Twenty-
 eighth street.
- Shea, Hon. George, 205 West Forty-sixth street.
 Sherman, W. Watts, 11 Nassau street.
- 160 Sherwood, John, 60 Wall street.
 Simpson, Brig.-Gen. Jas. H., U. S. A., Mobile, Ala.
 Sistare, George K., 24 Nassau street.
 Slevin, Edward P., 120 Broadway.
 Slevin, James M., 120 Broadway.
 Slevin, Thomas E., 53 Lispenard street.
 Smales, Holbert, 33 Wall street.
 Smith, Augustus F., 31 Nassau street.
 Smith, C. Bainbridge, 115 Broadway.
 Smith, James M., Jr., 25 Chambers street.
 Smith, James O., M. D., 81 Clinton place.



SACTIONS OF THE SOCIETY FOR 1872.

At the monthly meeting of the American Geographical Society, held at the Cooper Institute, New York, February 20th, 1872, FRANCIS A. STOUT, Esq., one of the vice-presidents presided.

At the suggestion of Mr. Remsen the reading of the minutes of the annual meeting, January 30th, 1872, was postponed. Geo. W. Cullum, on behalf of the Council, presented the names of the following candidates as having been recommended for election as

Permanent Members—Mayer Stern, David C. Blodgett, John H. Tibbs, F. William Meyer, Admiral S. W. Godon, Geo. P. Wetmore, Walston H. Brown, Edward A. Tannis, Arthur W. Tyler, Israel Corse, Z. B. Tower, E. Judson Hawley, H. L. Kendrick, U. S. A., J. Hoffman, James W. Gerard, Jr., James Bryce;

Associate Members—John W. Hamersly, Stephen C. Williams, William B. Wetmore.

After the ballot being called for, on motion they were declared elected members of the Society.

Mr. Remsen, in the absence of the treasurer, Henry C. Fox, reported a cash balance in the treasury of \$147.67. Mr. F. Hall, the librarian, reported that during the month 190 accessions had been made to the library and map-room.

At the suggestion both reports were accepted and ordered to be placed on file.

The President then read a letter which had been forwarded to him by the Rev. B. F. De Costa, inclosing a copy of a map by Alfonso, made in 1545.

On motion the letter was referred to the recording secretary to be filed.

The president then introduced to the Society William Newcomb, of Cornell University, Ithaca, who read a paper on "Hispaniola: its Past, Present and Future."

After the conclusion of the paper, and on motion Judge Kirkland, seconded by Mr. Hall, the thanks of the Society were presented to Prof. Newcomb for his interesting and instructive paper, and a copy of it recommended for publication in the Journal.

On motion the meeting then adjourned.

Regular monthly meeting of the American Geographical Society, Cooper Institute, New York, March 19th. In the absence of the president, Chief-Justice Charles P. Daly, Professor THEODORE W. DWIGHT, LL. D., presided.

The minutes of the last annual meeting, January 1872, and of the regular monthly meeting, February 20th, were read and approved.

Mr. Stout, on behalf of the Council, reported the names of the following candidates as having been approved for election as

Resident Members—J. H. Van Alen, Jacob V. Bernard Roelker, Thomas Rigney, Albert Klamroth, James R. Trueheart; as

Life Members—Edward Matthews and James Van Alen; and as a

Corresponding Member—By Mr. Francis A. Schuchert, Prof. Herrmann von Schlagintweit Sakünlünski, President of the Geographical Society in Munich.

By Chief-Justice Charles P. Daly, as a corresponding member, Charles Van Benthuyssen, Albany, N. Y.

No ballot being called for, on motion these gentlemen were declared duly elected members of the Society.

Mr. Moore, on behalf of the treasurer, Mr. Henry Moore, reported a cash balance in the treasury of \$849.49.

ial F. Hall, the librarian, reported that during the month 313 accessions had been made to the library and map-room by purchase and donation.

Recording secretary reported that he had received letters from President Negri, Prof. Hawkes and Mr.

E. Davis, in Rome, all evincing the liveliest interest in the welfare and prosperity of the Society.

Upon these various reports were accepted and approved to be placed on file.

Francis A. Stout, one of the vice-presidents, presented the following preambles and resolution, to

be read. During the last year there has been established in Munich, in Bavaria, a Geographical Society containing 500 members, having for honorary president His Majesty the King;

and, The said Society has transmitted its Journal and Proceedings, and expresses a desire for close correspondence and exchange; be it

Resolved, That this Society welcomes to the study and the advancement of geographical science its younger sister of Munich; congratulating her upon a beginning unusually prosperous and auspicious, begs to send the expression of the warm sympathies of our midst, and to assure her that any and all services which this Society can render the geographers of Munich are cheerfully and frankly proffered.

The resolution, after having been seconded by Mr. [Name], was unanimously adopted.

The president then introduced to the Society the Rev. [Name] Maury, who read a paper on "Martin Behaim's Map and its Influence upon Geographical Science."

At the conclusion of the paper, Col. T. Bailey Myers presented the following remarks:

PRESIDENT.—If the object of our Society is to foster geographical knowledge and to garner the results of scientific research; if we are willing, even now, with interest, the progress of the fear-

less little band who were with us here a few months since, eve of the departure to grapple, amidst the icebergs, the intractability of the problem of a North-west Passage,—it is natural that we should be deeply interested in such particulars as have been afforded us, this evening, of the appliances, means, and surroundings of the men who contemplated a western voyage to India four centuries ago. The address to which we have listened this evening has been delivered by one whose name is not unfamiliar in scientific circles or amongst students of science, whose labors, in his professional sphere, have been appreciated by many who have listened to him to-night, and who can bear witness how gracefully he can unite the labors of the practical man with those of the scholar. In following him through his interesting details of the researches and the explorations of Behaim, we cannot but appreciate anew our debt of gratitude to the men who performed the thankless task of developing the appliances and conceiving and propagating the explorations which others were enabled to execute the voyages which culminated in the acquisition of a world, and conferred immortal and dishonorable glory on their names. The application of the astrolabe and the abandoning of the time-honored route of exploration along the African coast, for steering a bold course westward in the pursuit of Cathay and fabled lands as yet unexplored, and the discovery in the addition of a continent, in the greatness and progress of the world which the Old World, while admitting a sister in the fact, denied in the nations in the present, is already looking for a rival in intellect, wealth, and progress. Whether to Toscanelli, to Behaim, or to Columbus we are indebted for this bold departure from the beaten path of exploration, it has been instructive to hear of the relative actions recalled, where each is worthy of our gratitude and participated in a course producing so brilliant a result. We appreciate the value of the discovery of the mariner's compass more fully when we have recalled to us the faults which rendered the astrolabe of so little value when it did not please the wind to shine, or the sea to be still; and we sympathize with the men who rose superior to the temptations which their surroundings and vocations in life held out to them to devote their entire attention to their daily duties, and what was then, as now, poorly considered the greatest achievement,—the acquisition of more

consecrated a portion of their time and earnings to studies tending to the increase of the area of the world, to the comfort, and the benefit of its inhabitants. To these men, in reaping the advantages of their labors, is due the gratitude, but, most of all, those who have enjoyed the privileges of a citizenship and a participation in the progress of a continent which, without their united efforts, might still have remained a *terra incognita*.

Martin Behaim was a brilliant example; on him the epithet of "merchant prince," often since applied, was justly bestowed; and the money circles in which he had won it, it is recognized and honored, and in "leaving the multiplication-table and passing to division" he erected a monument more enduring than any he had placed on the coast of Africa—destined to remain after his commercial ventures were forgotten, and the fruits of his industry—in so exemplary a manner. In his lifetime he merited to have been rewarded in a manner concordant with his studies as a geographer, by having his name continued on the map in connection with the strait of which we have heard the discovery so justly attributed to him. We cannot hope that his mantle may yet fall upon, and his spirit may be migrated into, some of our own numerous list of merchant-princes, and that in this Society they may find a medium of emulation, the example of one, a former president (Mr. Grinnell), showing its means and usefulness? In so doing they would aid the exertions of the limited number of gentlemen who may make up the difference between the Society's limited membership, and its outlays, which, including additions to its collection, are always largely in excess of its receipts. They would emulate the claims of Martin Behaim on posterity—a merchant-prince, the fruits of whose labor extended over the whole space of life.

Members then moved that the thanks of the Society be tendered to the Rev. Mytton Maury for his gracefully and instructive paper, the reading of which had been listened to with such marked attention by the members of the Society, and that he be requested to send a copy for publication in our Journal.

Mr. Robert Dodge seconded the motion with interesting remarks, describing his own inspection globe at Nuremberg, and suggesting a hope that a might soon be added to the collection. He also that the paper be printed.

The resolutions were adopted, and the meeting adjourned.

Regular monthly meeting of the American Geographical Society, held at the hall of the New York Historical Society, corner Second avenue and Eleventh street New York, April 16th, 1872. Chief-Justice CHARLES P. the president, in the chair.

The minutes of the last meeting, March 19th, 1872 read and approved.

Mr. Stout, on behalf of the Council, reported names of the following candidates as having approved for election as

Resident Members—Eugene E. Conklin, Horatio Foote, S. W. Bridgham and Prof. Frederick Steng

No ballot being called for, on motion these gentlemen were declared duly elected members of the Society

Mr. Paul B. Du Chaillu proposed as an

Honorary Member—His Majesty Charles XV, Eugene, King of Sweden and Norway ;

And by the same as a

Corresponding Member—Prof. A. E. Nordenskjöld Stockholm.

On motion it was

Resolved, That His Majesty the King of Sweden and Nordenskjöld be declared duly elected members of the Society without reference to the Council.

Which was unanimously adopted.

The recording secretary read, in the absence of Clews, the treasurer's report, exhibiting a cash balance in the treasury of \$853.57.

Mr. Hall, the librarian, read his monthly report,

during the past month eighty additions had been to the library, both by purchase and donation. In addition both these reports were accepted and ordered to be placed on file.

The president then introduced to the Society the distinguished African traveller, Paul B. Du Chaillu, Esq., who had visited, during the last summer, Sweden, Norway, and the highest latitudes of Northern Europe, and who now give a brief account of his observations and experiences.

Immediately after Mr. Du Chaillu began to address the Society, the Japanese Ambassadors, now on a visit to this country, entered by invitation, and were introduced to the Society by the president.

Chief-Justice E. S. Hiraka, of Yeddo, Japan, one of the Ambassadors, then expressed in appropriate English the thanks of himself and colleagues for the honor conferred by their appearing before this Society.

At the conclusion of his address, Mr. Du Chaillu presented to the Society, for its collection, a sleigh and furs which he had brought from Norway.

In recognition of the Hon. James W. Beekman, and in reply to a motion by Mr. Kirkland, the thanks of the Society were presented to Mr. Du Chaillu for his very interesting address and for his valuable donation of curiosities.

After this motion the meeting then adjourned.

The regular monthly meeting of the American Geographical Society, held at the hall of the New York Historical Society, New York, May 21st, 1872. Chief-Justice Charles P. DALY, in the chair.

The minutes of the last meeting, April 16th, 1872, were read and approved.

The report, on behalf of the Council, reported the names of the following candidates as having been approved for

as

Resident Members—Peter Marié, B. L. Goulding, Clark, Gen. S. W. Crawford, U. S. A., Rev. M. Maury, E. Steiger ;

And by Chief-Justice Charles P. Daly, as

Corresponding Members—Charles Maunoir, General Secretary Geographical Society, Paris ; Dr. A. Baumbach, President of the Geographical Society, Berlin ;

By E. R. Straznický, recording secretary, as

Corresponding Members—M. A. Becker, General Secretary of the Geographical Society of Vienna ; I. Behm, of Justus Perthe's Geographical Institute in Göttingen, and assistant editor of Petermann's *Mittheilungen*.

No ballot being called for, on motion these gentlemen were declared duly elected members of the Society.

Mr. Remsen, on behalf of Mr. Clews, read the treasurer's report, exhibiting a cash balance in the treasury of \$1,301.85.

Mr. Elial F. Hall, the librarian, read his monthly report showing that eighty-nine items had been added to the library of the Society by donation.

On motion both these reports were accepted and ordered to be placed on file.

The president then announced, with appropriate remarks, the death of our late associate, John D. Van Hook.

On motion of Mr. Stout, seconded by Mr. Remsen, it was unanimously

Resolved, That a special committee of three be appointed by the president to draft suitable resolutions on the death of Mr. Wolfe, and to report the same to the next Council meeting.

The president accordingly appointed Messrs. Van Hook, Remsen, and Drowne as such committee.

The president called the attention of the Society to the donation of rare Mexican books by Mr. W. H. Hurst, accompanied by the following letter to the recording secretary :

MANHATTAN CLUB, 96 FIFTH AVE., }
 May 20th, 1872. }

DEAR SIR,—Will you kindly allow me — as I find it will be
 for me to attend the meeting of the Society to-morrow—
 at, through you, the accompanying contributions to its
 of works relating to America? I procured them in
 where, through the kind and invaluable assistance of
 Iquín Icezbalceta, the first of Mexican bibliographers,
 the Secretary of the American Legation, Mr. Bliss, who
 an assiduous study of Mexican philology and archæol-
 succeeded in picking up quite a number of works upon
 objects. The other Aztec works are of more value philol-
 I suspect, than theologically. Mr. Melgar's curious
 on the Symbolism of the Mexican, as compared with that
 of the Oriental nations, was handed to me by the author him-
 self, is, at least, as devout a believer in his own theories as
 I am in his.

I trust the Society will do me the favor to accept these trifles,
 and you to believe me,

My dear sir,

Very faithfully yours,

WM. HENRY HURLBERT.

tion it was

ed, That the thanks of the Society be presented to Mr.
 for his valuable donation.

resident then informed the Society of the presence
 of Sir Inglefield, of the Royal Navy, the distin-
 Arctic traveller and author.

resident now introduced to the Society Professor
 of Cornell University, who delivered a discourse
 on explorations in the Lower Amazon, accompanied
 by microscopic views.

tion of Hon. Judge Davies, seconded by Mr.
 the thanks of the Society were presented to Prof.
 for his very interesting and instructive discourse,
 a copy of it requested for publication in the Journal.
 tion the meeting then adjourned.

Regular monthly meeting of the American Geographical Society, held at the hall of the New York Historical Society, corner of Second avenue and Eleventh Street, New York, November 12th, 1872. Chief-Justice C. P. DALY, the president, in the chair.

The minutes of the last meeting, May 21st, 1872, read and approved.

Judge Wm. E. Curtis, on behalf of the Council, read the names of the following candidates as having been recommended for election as

Resident Members — Jonathan Edwards, Robert Grinnell, Gen. James H. Simpson, U. S. A. ;

And by Francis A. Stout, Esq., as

Corresponding Members — Monsieur Vivien de Saint Martin, Vice-President Geographical Society, Paris ;

By Prof. Hartt, of Cornell University,

W. Chandless, Gold Medallist of the Royal Geographical Society, London.

No ballot being called for, on motion these gentlemen were respectively declared duly elected resident and corresponding members.

In the absence of the treasurer, Mr. Henry Clever, the recording secretary presented his monthly report, enclosing a cash balance in the treasury of \$482.68.

Mr. Elial F. Hall, the librarian, presented his monthly report, showing that since the last report had been rendered (on the 21st May, 1872), in all, six hundred and fifty-one additions were made to the library, by purchase and donation.

On motion both these reports were accepted and ordered to be placed on file.

Mr. Remsen, on behalf of the Council, presented the following report of the special committee appointed on the 21st of May, 1872, relative to the death of Mr. John Wolfe, as one of our associates.

The Council respectfully presents the following

On the 1st of June, 1872, a meeting of the Council

the Society's rooms in the Cooper Institute, at
clock P. M., Chief-Justice Charles P. Daly, *pro*
siding, when Mr. F. A. Stout, as chairman of the
committee appointed on the 21st of May, 1872,
ard to the death of our late associate, John David
presented the following preamble and resolutions
tion :

as, In the death of John David Wolfe, one of our
members, not only this Society, but the whole community,
ined a great and irreparable bereavement ; therefore,
d, That, in the death of Mr. Wolfe, we lament a gener-
actor and a kindly and liberal man, seeking unceasingly
tunities to carry out and complete, by deeds, the great
f his heart.

d, That we cherish with loving recollection the memory
ght example, of his pure patriotism, of his tender soli-
the wants and sufferings of others, and of that gentle
derate disposition that, during a long life, accompanied
est integrity, the highest honor, and the most exalted

d, That the recording secretary be directed to trans-
e family of the deceased a copy of these resolutions,
antecedent proceedings.

otion the preamble and resolutions were unani-
adopted, and on the 3d of June a copy of them
mitted, by the recording secretary, to the family
ceased.

Respectfully submitted.

CHARLES P. DALY,
Chairman of Council pro tem.

otion of Mr. Hall, seconded by Mr. Stout, the
as accepted and ordered to be placed on file.

resident then called the attention of the Society
llowing very valuable donations which had been
the library and map-room by the following per-

a. Baron Osten-Sacken, late Imperial Russian General — A collection of the Russian Imperial coast or survey-maps, of the Russian Empire.

b. Admiral Inglefield, of the British Navy — The collection of maps and charts of the British coast bearing over one hundred and fifty.

c. Major Constable — A collection of Chinese and Japanese maps.

On motion of Judge Wm. E. Curtis, seconded by Stout, it was

Resolved, That the thanks of the Society be paid through the recording secretary, to the various donors of valuable donations.

The president then introduced to the Society Henry Sterry Hunt, of Boston, who read a paper on the Geography of North America.

After the conclusion of the reading of this paper on motion of Judge Wm. E. Curtis, seconded by Remsen, the thanks of the Society were presented to Prof. Hunt for this very interesting and instructive paper, and a copy of it was requested for publication in the Journal.

On motion the meeting then adjourned.

Regular monthly meeting of the American Geographical Society, held at the hall of the New York Historical Society, New York, December 17th, 1872. Chief Clerk, CHARLES P. DALY, the president, in the chair.

The minutes of the last meeting, November 12th, were read and approved.

Col. Conkling, chairman of the Council, reported the names of the following candidates had been appointed for election as

Resident Members — Frederick Macmillan, Prime, Samuel S. Cox, Levi Holbrook, Dexter A. Perkins, Morris S. Miller, Dunham Jones Crain ; and

Member—William Libbey ;

Francis A. Stout, as a

Responding Member—Prof. Charles H. Hitchcock,
Hanover, N. H.

After being called for, on motion these gentlemen
declared duly elected resident and corresponding
members.

In the absence of the treasurer, Mr. Geo. Cabot Ward
read his monthly report, exhibiting a cash balance
in hands of the treasurer of \$245.92.

William F. Hall, the librarian, presented his monthly
report showing that in all twenty-five items had been
received by donation to the library and map-room.

On motion both these reports were accepted and ordered
to be placed on file.

Francis A. Stout proposed the following amend-
ment to the by-laws of the Society, to wit :

Resolved, That chapter V of the by-laws be amended by sub-
stituting "nine" for "eight," and by striking out the words "a
year;" that the words "for the past year" be inserted after
the word "dues" on the second line of section 2 of chapter
V; that the word "he" be substituted for the words "the
president" in chapter XIII; and that the whole of said chapter,
as amended, be added to the end and as the final part of
chapter XII; and as to chapter XIII, that the
chapter be abrogated, and that all the succeeding chapters be
renumbered so as to follow successively from chapter XII.

On motion the proposed amendments were laid on the
table and by the existing by-laws will have to be taken
up for final adoption at the next monthly meeting.

On motion of Dr. J. W. Richards the following special
committee was appointed by the president to nominate
officers for the next annual election in January,
to-wit: Messrs. Richards, S. D. Tillman, and Horatio
Hunt.

The president then introduced to the Society Dr. J. T.

Rothrock, of Wilkesbarre, Pa., who read a paper
"Our North-west: its Resources and its Inhabitants."

After the conclusion of the paper, and on motion
the Hon. Hiram Barney, seconded by Mr. Stout,
thanks of the Society were presented to Dr. Rothrock
his very interesting and instructive paper, and a copy
it was requested for publication in the Journal.

On motion the meeting then adjourned.

Annual meeting of the American Geographical Society
Cooper Institute, New York, January 28th, 1873. In
absence of Chief-Justice Daly, the president, Col. Con-
KLING, one of the vice-presidents, occupied the chair.

The minutes of the last meeting, December 17th,
were read and approved.

Col. Conkling, as chairman, presented the annual report
of the Council, which on motion was accepted and ordered
to be placed on file.

Mr. Henry Clews, the treasurer, read his annual report
exhibiting a cash balance in the treasury of \$58.05,
stating that the Society is now entirely out of debt.

On motion the treasurer's report was accepted and
ordered to be placed on file.

Mr. Elial F. Hall, the librarian, read his annual report
showing that during the past year one thousand
hundred and fifty-six items had been added to the
Society's library and map-room.

On motion the librarian's report was accepted and
ordered to be placed on file.

Col. Conkling, as chairman of the Council, then reported
the names of the following candidates as having been
approved for election as a

Resident Member — John J. Casey;

And by Mr. Francis A. Stout, as a

Corresponding Member — General Thomas B.
Buren, U. S. Commissioner-General to the Vienna Ex-
position.

y Mr. Robert Dodge, as a
Corresponding Member — Dr. J. T. Rothrock, Wilkes-

a.
 lot being called for, on motion these gentlemen
 declared duly elected resident and corresponding

ording secretary then read the amendments to
 laws of the Society as proposed at the last monthly
 on December 17th, 1872.

tion these amendments were accepted, and the
 so amended declared to be in force.

chards, as chairman of the Nominating Commit-
 reported that the names of the following gen-
 re recommended for election, as officers of the
 for the ensuing year :

nt — CHARLES P. DALY, LL. D.

residents — F. A. CONKLING, FRANCIS A. STOUT, T.
 YERS.

Corresponding Secretary — JAS. MUHLENBERG BAILEY.

ic Corresponding Secretary — W. H. H. MOORE.

ng Secretary — E. R. STRAZNICKY, M. D., Ph. D.

er — HENRY CLEWS.

— WM. REMSEN, W. T. BLODGETT, W. E. CURTIS,

DWIGHT, LL. D.; GEO. W. CULLUM, U. S. A.; GEO.

ARD, ELIAL F. HALL, THEODORE ROOSEVELT, WM.

PPIN.

resident then appointed Messrs. John W. Ham-
 Clinton Gilbert as tellers, who reported that the
 the gentlemen as recommended on the ticket
 unanimously elected.

tion they were then declared duly elected officers
 ciety for the year 1873.

resident then introduced to the Society Dr. Augus-
 longeon, who read a paper on "The Coincidences

between the Monuments of Ancient America and that of Assyria and Egypt."

After the conclusion of the paper, and on motion Dr. Richards, the thanks of the Society were presented to Dr. Le Plongeon, and a copy was requested for the archives of the Society.

On motion the meeting then adjourned.

E. R. STRAZNICKY,
Recording Secretary

ANNUAL REPORT OF THE COUNCIL FOR 1872.

ROOMS OF THE AMERICAN GEOGRAPHICAL }
 SOCIETY, COOPER INSTITUTE, }
 NEW YORK, *Jan. 28th*, 1873. }

The date of the last annual report eight stated meetings of the Council and seven meetings of the Society have been held, and a public reception has been given in the large hall of the Union.

At the last annual meeting, which was held on the 30th of December, 1872, the present board of officers was elected. Prof. J. C. Gilman, then of the Sheffield Scientific School of Yale College, now the president of the University of California, delivered the annual address, selecting as his subject "American Contributions to Geographical Science during the Last Year." On February 20th ensuing, Prof. Wm. Newcomb, of Cornell University, read a paper on "Hispaniola: its Past, Present, and

Future." On March 19th, Rev. Mytton Maury, of Fordham, read a paper on "Behaim's Globe, and its Influence upon Geographical Science."

On April 16th, Monsieur Paul B. Du Chaillu gave an account of his "Observations and Experiences during the Last Summer in Norway, and the Highest Latitudes of Northern Europe."

On May 21st, Prof. Hartt, of Cornell University, delivered a paper illustrated by stereoscopic views, on his "Explorations of the Lower Amazon."

On June 12th, Prof. T. Sterry Hunt, LL. D., F. R. S., of the University of Cambridge, read a paper on "The Paleo-Geography of North America."

On September 26th, a reception was given by the Society to Dr. David Livingstone, the discoverer of the Victoria Nile.

On December 17th, Dr. J. T. Rothrock, of Wilkes, read a paper on "Our North-West: its Resources and its Prospects."

The roll of resident members has continued to increase, and will be seen from the following statement :

Number of resident members on January 30, 1872
 Number since added.....

Total
 Deduct for deaths and resignations.....

Number remaining January 28, 1873

Among the names of those who will be painfully missed from the rolls of the Society, especial mention is due to two of its most steadfast friends and generous benefactors, Prof. S. B. Morse and John David Wolfe, Esq. The former, who has been so intimately connected with the earliest geographical explorations of the United States, has left to the Society a legacy of one thousand dollars for the endowment of a medal to be awarded for distinguished services in the field of geographical science and exploration.

The annual report of the treasurer, Henry Clews, Esq., shows a satisfactory condition of the finances of the Society. In addition to the regular income, a special, private subscription has been set on foot, which promises to yield a further sum of one hundred dollars per annum for the next two years.

From the annual report of the librarian, Elial F. Hall, it will be seen that considerable and valuable additions have been made both to the library and to the department of maps and charts, amounting in the aggregate to one thousand three hundred and fifty-six items.

The donation of the Royal Hydrographic Office in London, embracing the whole collection of maps and charts of the British coast, and numbering one hundred and sixty sheets, deserves particular mention. This valuable addition to our collection was made through the instrumentality of Admiral Inglefield of the Royal Navy.

At the request of the proper authorities the Society has

formation of a geographical and statistical collection Vienna Exposition. This work has been confided to C. A. Stout and James M. Bailey, and promises to add to the reputation of the Society. An interesting feature group will be the exhibition of several hundred photographs illustrative of the natural scenery of the United States, particularly of the gold and silver bearing regions of the West.

Grateful duty devolves upon the Council to record anew the liberality of Peter Cooper, Esq., and the trustees of the Cooper Union, in providing the Society with the fire-proof apartments which it has so long occupied.

Respectfully submitted.

F. A. CONKLING,
Chairman of the Council.

ANNUAL REPORT OF THE TREASURER FOR 1872.

AMERICAN GEOGRAPHICAL SOCIETY'S ROOMS, }
COOPER INSTITUTE, NEW YORK, Jan. 28th, 1873. }

The Treasurer respectfully submits the following annual report, for the period from January 30th, 1872, to January 28th, 1873, of the receipts and disbursements of the Society:

Receipts.

from last year	\$130 89
bill of last year	16 96
life memberships, at \$50	650 00
fees from forty-five resident members, at \$10,	450 00
dues for 1870.....	\$15 00
dues for 1871.....	75 00
dues for 1872.....	1,372 50
	<hr/>
	1,462 50
subscriptions.....	1,550 00
	<hr/>
With the balance at the end of last year, makes	
of.....	<u>\$4,260 35</u>

Disbursements.

Salaries for 1871-72.....	\$
Purchase of books, maps, etc.....	
Furniture	
Stationery	
Printing	
Sundry expenses for meetings, advertising, reporting, postage, etc.....	
Travelling expenses to lecturers.....	
Gas bills.....	
Loan cancelled.....	

Leaving a cash balance on hand of

If to this sum is added :

a. The uncollected dues of 500 resident members at \$5,

b. The guaranteed subscription for 1873

The available resources for the coming year will
then be

There are outstanding about \$1,000 of back dues for 1872, of which a considerable amount, perhaps one-half collected in the coming year. Besides this amount there are initiation fees of prospective new members, which also on an average to about \$500 per annum.

Respectfully submitted.

HENRY CLEW

Tre

NEW YORK, Jan. 25th

The undersigned, a committee appointed to audit the treasurer's account, have this day compared the above account with the books of the treasurer, and have verified the payments by comparison with the vouchers, and find the same to be correct. The balance on hand to be therein fifty-eight dollars and f

WILLIAM REMSEN,
GEORGE CABOT WARREN,

Com

ANNUAL REPORT OF THE LIBRARIAN FOR 1872.

ROOMS OF THE AMERICAN GEOGRAPHICAL
SOCIETY, COOPER INSTITUTE,
NEW YORK, *Jan. 28th*, 1873. }

According to the existing by-laws, the librarian respectfully presents the following report for the period commencing on the 30th January, 1872, and ending on the 31st December, 1872. The book of donations shows that during that period five hundred and eighty-one entries have been made, and that they are of the following description :

— Folios	7
Quartos	17
Octavos	220
Duodecimos	9
s — Quartos	114
Octavos	708
sheets	167
by donation	1,242

The book in which the purchases are recorded shows that during the same period four hundred and thirty-four entries have been made, and these are of the following description :

— Folios	38
Quartos	0
Octavos	50
Duodecimos	0
s — Quartos	3
Octavos	16
sheets	7
by purchase	114
and total by purchase and donations	1,356

Among the donors, the Royal Hydrographical Office of the Admiralty, in London, deserves special mention. Through the efforts of Admiral Inglefield, of the Royal British Navy,

the whole collection of the charts of the British coast, ing one hundred and sixty sheets, was presented to the

The names of all the other donors, institutions, and that have contributed to the library and map-room of the will appear in the printed list attached to the librarian's report.

Respectfully submitted.

ELIAL F. HALL

Libr

REPORT OF THE SPECIAL COMMITTEE TO N

NATE OFFICERS FOR THE YEAR 1873.

AMERICAN GEOGRAPHICAL SOCIETY

NEW YORK, Jan. 22d, 1873.

The undersigned, a special committee appointed at monthly meeting of this Society, on the 17th of December for the purpose of preparing nominations for the election of officers on the 28th of January, 1873, respectfully report they would recommend the names of the following gentlemen to be elected as officers of the Society for the year 1873 :

President — CHARLES P. DALY, LL. D.

Vice-Presidents — F. A. CONKLING, FRANCIS A. ST. BAILEY MYERS.

Foreign Corresponding Secretary — JAS. MUHLENBERG

Domestic Corresponding Secretary — W. H. H. MOORE

Recording Secretary — E. R. STRAZNICKY, M. D., Ph.

Treasurer — HENRY CLEWS.

Council — WM. REMSEN, W. T. BLODGETT, W. E. THEO. W. DWIGHT, LL. D.; GEO. W. CULLUM, U. S. A. CABOT WARD, ELIAL F. HALL, THEODORE ROOSEVELT, JONES HOPPIN.

Respectfully submitted.

J. W. RICHARDS, *Chairman*

SAMUEL D. TILLMAN.

HORATIO M. ALLEN.

APPENDIX

TO THE

AL REPORT OF THE LIBRARIAN FOR 1872.

*etical List of Donors to the Library and Map-room of
the American Geographical Society.*

INDIVIDUALS.

James Muhlenberg.....	New York.
Major-General J. G., U. S. A.....	New York.
n. Isaac, Com'r of Charities and Correction, New York.	
l, William, Esq.....	New York.
rof. J. H. C., U. S. N., Superintendent American Ephe-	
and Nautical Almanac.....	Washington, D. C.
Chief-Justice Charles P., LL. D.....	New York.
William B., Esq.....	New York.
a, Rev. B. F.....	New York.
ll, Rev. B. F.....	New York.
Daniel, Esq., Director Meteorological Observatory at	
l Park.....	New York.
Henry T., Esq.....	New York.
His Excellency Manuel R., Minister Plenipotentiary and	
Extraordinary of the Argentine Republic,	
	Washington, D. C.
, William Neilson, LL. D., Secretary of the Statistical	
cial Science Inquiry Society of Ireland	Dublin.
h, Hon. S. G., State Librarian	Columbus, O.
rof. Joseph, LL. D., Secretary of the Smithsonian Insti-	
.....	Washington, D. C.
ys, Brigadier-General, U. S. A., Chief of Engineers,	
	Washington, D. C.

Kais.-König. Geologische Reichsanstalt, Wien.

Lyceum of Natural History, New York.

Mexican Geographical and Statistical Society, Mexico.

New York Association for Improving the Condition of the
New York.

New York State Library, Albany.

Peabody Academy of Science, Salem, Mass.

Pulkowa Observatory.

Royal Academy of Sciences, Brussels, Belgium.

Royal Cornwall Polytechnic Society, Cornwall, England.

Royal Danish Society of Sciences, Copenhagen.

Royal Danish University, Lund, Sweden.

Royal Geographical Society, London.

Royal Societies of Sciences, Upsala.

Royal Society of Sciences, Göttingen.

Royal Society, London.

Royal Statistical Bureau of Sweden, Stockholm.

Secretary of State of the Argentine Republic, Buenos Ayres.

Statistical Bureau of the Free City of Pesth.

Statistical Society, London, England.

United States Coast Survey Office, Washington, D. C.

Verein für Erdkunde, Darmstadt.

Verein für Erdkunde, Dresden.

Verein für Geographie und Statistik, Frankfort-am-Main.

Vermont State Library, Montpelier, Vt.

PART II.

RS READ BEFORE THE SOCIETY.

THE AUTHORS ARE ALONE RESPONSIBLE FOR THE CONTENTS OF
SPECTIVE PAPERS.)



I.

ANNUAL ADDRESS.

BY CHIEF-JUSTICE DALY, THE PRESIDENT.

—THE GEOGRAPHICAL WORK OF THE
WORLD IN 1872.

DELIVERED FEBRUARY 17TH, 1873.

PHYSICAL EVENTS OF THE YEAR.

Physical events of a geographical and general character which have especially marked the past year are: The wide-spread disturbance of the earth's surface exhibited in volcanic action and earthquakes, periodic disturbances in the shape of storms, cyclones, hurricanes, and tornadoes, distinguished by their wide extension over the earth's surface, their intensity, the frequency of their occurrence, and the great destruction of life and property that has attended them; enormous inundations, especially in Asia, and extensive inundations and devastating floods, from the overflow of rivers, and the action of the sea upon coasts in Europe; remarkable extremes of heat and cold in various parts of the world, exceptional in their intensity, and the length of their duration, with all of which, perhaps, should be connected observations made during the year of additional evidences of the gradual rising and sinking of the level of different parts of the earth, as indicated by marks on the coast-line of continents and islands.

Among the most prominent of these physical events may name the earthquake in California in March which extended over 1,500 miles of territory, and during the three days of the continuance of which it seven thousand shocks were felt. The earthquake the unfortunate city of Antioch, in Syria, involving loss of two thousand lives; the occurrence, ten days of violent shocks at Accra, on the Gold Coast of Africa contemporaneous with which was the great hurricane destroyed every vessel but one in the harbor of Zanzibar and earthquakes, more or less severe in their effects New Zealand, in Java, in the Philippine Isles, at Erzurum in the Caucasus, in England, Scotland, and other places in Europe, at Valparaiso, Hawaii in the Sandwich Islands, Oaxaca in Mexico, in Tennessee, Iowa, Dakota on the North-east coast of America, over the New England States, and as far north as Quebec; and submarine earthquakes upon our Western lakes.

The continuous passage, from February to May, of immense ice fields along the coast of Newfoundland from Baffin's Bay and Smith's Sound; the eruption of Mount Vesuvius, last April, the most terrible known in centuries; the great February storm in the North-west of the United States, during which eight hundred rail cars were blocked and numerous lives lost; the remarkable snow drifts in Nova Scotia, thirty feet high; the tornado in Ohio, blowing down one hundred and fifty houses; and the great gales involving an extensive loss of property on our Western lakes; the immense rain in Bombay; the violent cyclone in the harbor of Manila; the terrific gales and hurricanes on the Baltic and North Sea, by which one thousand miles of land were flooded, the water rising higher than had ever before been known; the inundation of the River Po, covering four hundred square miles and rendering sixty thousand persons homeless; the inundations of the Rhine, the Seine, and the Loire, and toward the close of the year, the ten

hurricane, and floods in England, and the extraordinary wind in Ireland; the intense cold in the beginning of the year, by which many persons in our North-American States perished; the excessive heat during the months of May, June, July, and August; the extraordinary electrical convulsions throughout the States, during this heated period, and the appearance of large sun-spots, which were discovered and seen several days toward the close of July; the excessive cold of the present winter, one of the accompaniments of which has been the terrific snow-storm that recently overran the State of Minnesota, during which hundreds of persons were exposed to it, and unable to escape, were frozen to death; to which enumeration, by no means a full one, I may add the terrible earthquake which occurred a few days ago at Somghee, in India, a town 114 miles north of Calcutta, involving the loss of 1,500 lives.

The concurrence of physical events of this character, so frequent and so numerous, within the limited period of the year, adds weight to the theory maintained by many other geologists, that causes now in operation, which may have been acting over long periods of time, is inadequate to account for all the disturbance and changes that have taken place upon the earth's surface.

AMERICAN EXPLORATIONS AND SURVEYS.

In my general survey of the geographical work accomplished during the past year, I will first call attention to what has been done in our own country. It comprises the labors of the Coast Survey, under the administration of Prof. Peirce; of the Engineer and Surveyor of the U. S. Army, under the direction of its assistant, Brig.-Gen. A. A. Humphreys, whose report for the year is one of unusual extent and exceeding interest; the explorations in the Territories of Utah, and Montana, under the direction of Prof. F. V. Coville, the chief of the Geological Survey of the United

States Territories ; the continuation of the survey of the fortieth parallel, under Mr. Clarence King ; the extensions west of the hundredth meridian, under the command of the late Major George M. Wheeler, of the Engineer Corps ; the reconnaissance of the basin of the Upper Yellowstone River, in Wyoming and Montana Territories, embracing the head-waters and sources of that river, by Capt. W. H. Barlow, assisted by Capt. D. P. Heap, of the Corps of U. S. Engineers ; explorations and surveys in the Rocky Mountains in Utah, by Capt. W. A. Jones, of the same corps ; the determination of the difference of longitude between Detroit, Mich., and Fort Leavenworth in Kansas, by Lieut. E. H. Ruffner, likewise of the same corps ; and the reconnaissance and cartographical labors, under the direction of that officer, for a series of maps on a scale of an inch to four miles, embracing Kansas, Nebraska, of the sixth principal meridian, Colorado as surveyed, the Indian Territory, Chickasaw Nation, and a portion of New Mexico ; the continuation of Prof. Peck's exploration of the Colorado River and its vicinity, and the exploration by his associate, Prof. Thompson, of the same region north toward the Wahsatch Mountains ; the geographical and scientific investigation, by W. H. Dall, upon the geography, hydrography, and natural productions of the Aleutian Islands, and their vicinity ; the surveys, explorations, and reconnoissances in connection with the building of the North Pacific Railroad from the head of Lake Superior to Puget Sound, under the command of the Engineer, Gen. W. Milnor Roberts ; the meteorological observations of the Signal Service Bureau of the War Department, under Brig.-Gen. A. J. Myer ; the completion of the scientific voyage of the "Hassler" around the Continent of South America, organized by the United States Survey for the more particular observation of the coast lines of South America, for deep-sea dredging throughout the voyage, and the making of Zoological and other collections in natural history, to which should be added

continuation of the geological surveys of the States of New Hampshire, New Jersey, Ohio, Michigan, Indiana, Illinois, Louisiana, and California, embracing an amount of work, which, in extent and value, will compare with that of any previous year.

Before proceeding to give a brief account of the nature of these respective labors, I must express my acknowledgments, particularly to Prof. Hayden, Lieut. Wheeler, Gen. W. Milnor Roberts and E. R. Esterbrook, Esq., of the Signal Service, all of whom have most kindly, upon request, furnished me with the latest information in their respective departments.

COAST SURVEY.

The year was unfavorable for surveying operations along our coast; but the labors of the Coast Survey have been in other respects active and important. They have embraced the scientific voyage of the steamer "Hassler" around the Continent of South America, which was organized for the more particular observation of the coast-lines of that continent, for deep-sea dredging throughout the course of the voyage, and for the making of zoölogical and other collections in natural history. The temporary occupation of points upon the Rocky Mountains for scientific purposes; an expedition for the more exact determination of the difference of longitude between Washington and Greenwich, which, under the direction of Prof. J. E. Hilgard, was brought to a successful conclusion last September; the continuation of the survey of the harbor of New York, in which considerable progress was made during the year, and observations relating to the hydrography of the Gulf of Mexico.

VOYAGE OF THE "HASSLER."

The voyage of the "Hassler" lasted nine months. The chief scientific result has been the observation by Prof. Agassiz of the evidence of post-glacial action on the coast of South America, both on the Atlantic and the Pacific

side, below the thirty-seventh parallel of south latitude, with the detection of existing glaciers in the Straits of Magellan and on the coast of Chili, and an immense zoological collection, embracing 100,000 specimens of fish in which alone amount to 30,000. The deep-sea fishing, a very important object, was not pursued to any extent, from some defect in the apparatus or other cause.

Agassiz found a strong resemblance between the parts visited and regions of the Alps with which he was familiar, which resemblance, he says, is not superficial but extends to the geological structure of the whole region. What he saw, he says, was the evidence of glacial action, or, as he expresses it, terrestrial marine ice moving upon the solid ground, and not icebergs which as floating bodies could not have produced the abrasion which he saw; the planing, grooving, and rounding of the rocks. He found the country presented a glacial-worn aspect as far north as the Gulf of Mexico in Chili. His conclusion from what he saw was that during the glacial period both hemispheres must have each been capped with an enormous sheet of ice, originating northwardly from the Atlantic, and the other originating southwardly from the Arctic toward the equator. He concludes from what he saw in South America, he is convinced that ice has been the great paring machine by which the rocky surfaces of the globe have been fashioned. He says that the great geological agents have not alone been fire and water, but that ice has had a great share in fashioning the earth's surface. The professor says that he knows that his observations will be questioned, and he says pleasantly: "An old hunter does not take the track of a fox for that of a wolf; and I, an old hunter of geological tracks, know their foot-prints when I find them." He should perhaps here mention that Prof. Hartwig accompanied Agassiz in the exploration of the Andes. In a paper read before this Society during the session he pointed out mistakes which the professor had made.

the observation in South America of what he supposed to be the result of glacial action ; and that eminent geologists, such as Lyell, Dawson, Dr. Sterry Hunt, and Home, do not admit that there ever was such a glacial period as Agassiz believes to have existed, or anything at any time but glaciers in particular localities; and the opinion of these geologists has been somewhat strengthened by recent observations of M. C. Grad in North Africa, especially in the Atlas range and in the Desert of Sahara. On the other hand, Lieut.-Col. Drayson, R. A., has just published a work in which he gives not only a formidable array of evidence in proof of a glacial epoch, but assumes it to be a necessary consequence of the change which takes place in the direction of the earth's axis, whereby the whole earth is affected. This change, Col. Drayson argues, would, in about 16,000 years, cause a decrease in the obliquity of thirty-five degrees, which, he says, would bring about climatic changes quite sufficient to produce Agassiz's glacial epoch.

SURVEYS AND EXPLORATION OF THE UNITED STATES ENGINEER CORPS.

The labors of the Engineer Corps during the past year have been very extensive in the geographical work of the improvement of harbors and rivers, a matter of the highest importance and value in our country, so large a portion of which is as yet but partially developed. The survey of our great lakes by the corps has also been carried on; that of Lake Superior being completed, and that of Lake Michigan carried so far that it will probably be completed in another season. With this work have also been connected astronomical and meteorological observations, and lake-surface observations, extending over the entire lake region.

PROF. HAYDEN'S EXPLORATION IN UTAH, IDAHO, AND MONTANA TERRITORIES.

The result of Prof. Hayden's expedition during the

year in Utah, Idaho, and Montana, I prefer to give in the language of the communication he has courteously sent me:

“The report of the exploration of the valley of the Upper Yellowstone, and the head-waters of the Madison, during the season of 1871, by the U. S. Geological Survey of the Territories, created such an interest in the public mind all over the country that Congress was led thereby to pass a law forever withdrawing from the public lands intended for sale, or occupancy by settlers, a tract comprising 8,575 square miles. This reservation was called the Yellowstone National Park, and was intended to preserve and protect the wonderful curiosities of nature within its borders for the benefit and instruction of the people. To complete this exploration, so successfully commenced, a second expedition was made into that region during the past summer (1872). The appropriation for the survey by Congress, during the session of 1871-72, was so liberal that the geologist in charge was enabled to organize two separate parties. To each of these parties there were attached a geologist, an astronomer, topographer, and meteorologist, with the necessary assistants for each. One of the parties, under the immediate direction of Mr. James Stevenson, surveyed a route from Ogden, Utah, to Fort Hall, Idaho Territory, where full preparations were made for a pack-train with supplies to proceed up Snake River. The party passed up the west side of Snake River valley, making a careful, detailed survey of all the branches of that stream, located the Great Teton range, and then passed up the valley of Henry's Fork, and entered the Madison Valley through the Targee Pass, and reached the Geyser Basin, August 14.

“The second party, under the direction of Prof. Hayden, proceeded to Bozeman, Montana, in the valley of the Gallatin, and made that its point of departure. The valleys of the Yellowstone, Madison, and Gallatin, with

their numerous branches, were all carefully examined, and the materials secured for a map of the country in contour lines of one hundred feet each.

"The event of the season was the ascent of the Grand Teton. There is no tradition that any white man has ever reached its summit. A party of thirteen began the ascent; but only two succeeded, Mr. Stevenson and Mr. Langford. They found upon the summit a rude structure, which appeared to be an inclosure, and which must have been built several hundred years since, and is supposed to have been used as a protection from the wind.

"The elevation of the Grand Teton was found to be 13,762 feet above the sea, thus making it one of the monarch peaks of our continent.

"The examination of the four remarkable passes at the head of Henry's Fork was another of the interesting and important results of this Survey. Here are four passes across the water-shed of the continent, connecting the Atlantic with the Pacific Slope. These passes represent the four points of the compass. The Targee, or East Pass, is 7,063 feet above the sea, and opens into the Upper Madison, forming the most important gateway to the Yellowstone National Park. The Madison, or North Pass, leads into the Lower Madison Basin, thus connecting the North-west with the great interior basin of Utah, as well as the Pacific Slope. The Red Rock Pass, with an elevation of 7,271 feet, leads to the valley of Jefferson Fork, and thus to any portion of Montana. Henry's Lake, which gives origin to Henry's Fork, is located in the centre of these passes, and has an elevation of 6,443 feet.

"This wonderful region, which seems to form the apex of the continent, was carefully explored and mapped. Here, within a radius of fifty miles, the snows that fall upon the mountain-tops give origin to the largest rivers on our continent, forming one of the most remarkable water-sheds, in a geographical point of view, in the

world. On the north side are the sources of the Yellowstone; on the west, those of the Three Forks of the Missouri; on the south-west and south, those of the Snake River, flowing into the Columbia, and thence into the Pacific; and those of the Green River, flowing southward to join the Great Colorado, and finally emptying into the Gulf of California; while on the east side are the numerous sources of Wind River. We thus see that this water-shed gives origin to three of the largest rivers in North America—the Missouri, Columbia, and Colorado. The general elevation of this portion is from 7,000 to 8,000 feet; while the mountain-peaks, which are very numerous, average from 9,500 to 11,000 feet. From one lofty peak at the source of Snake River 470 mountain-peaks were counted within the circle of vision.

“About the sources of Snake River it was found that the existing maps were quite incorrect. Madison Lake, which was previously supposed to be the source of Madison River, was found to give origin to Snake River. It is a beautiful body of water, about eight miles wide and twelve miles long. From it flows a stream about one hundred feet wide, which, after flowing a distance of five miles, empties into another lake, about four miles long and one and a half miles wide. The first of these was called Lake Shoshonee, and the latter Lake Lewis, in honor of the great explorer of the North-west.

“At the upper end of Lake Shoshonee a new geyser basin was discovered, containing over one hundred springs, several of which ranked with first-class geysers. The ornamentation about these springs is peculiar, and even more beautiful than that around the springs in the geyser basins on the Madison.

“Careful observations were made by both parties for latitude and longitude at every available point, and several localities, as Fort Hall, Virginia City, Fort Ellis, and Helena, were fixed with a good degree of precision.

“Six of Green’s best cistern barometers, and a dozen

aneroids, were in constant use. The observations and collections in geology, mineralogy, botany, and the various departments of natural history, far exceeded those of any previous year.

"Besides the two principal parties mentioned above, five small parties have been operating in different parts of the West, under the auspices of the Survey, with great success. Prof. Joseph Leidy spent about two months examining the ancient lake basins of Wyoming for vertebrate remains, and Prof. E. D. Cope occupied most of the season in various parts of the West, making most important discoveries.

"The relations of the great Cretaceous and Tertiary groups of the West to each other have become a question of the highest interest; and Mr. F. B. Meek, the distinguished paleontologist, spent the summer along the line of the Pacific Railroad, studying these formations and collecting the evidence from invertebrate fossils; while Prof. Leo Lesquereux, our great authority on fossil botany, took up the coal groups in the West, and made the plants a subject of special investigation; and Prof. Cyrus Thomas devoted the summer to the agricultural resources of the North-west.

"All these gentlemen are now busily engaged in preparing their reports for publication by Congress."

SURVEY OF THE FORTIETH PARALLEL.

The geological and topographical exploration of the territory between the Sierra Nevada and the Rocky Mountains, under Mr. Clarence King, has, during the year, embraced the completion of the field-work of the geological exploration of the fortieth parallel; an illustrative series of the studies of the geology and topography of the extinct volcanoes, and further studies in glacial action. A third volume of this most interesting survey is now in the course of publication by the Government.

**LIEUT. WHEELER'S EXPEDITION IN NEVADA, UTAH,
AND ARIZONA.**

From notes kindly furnished me by Lieut. Wheeler, I am enabled to give the result of the year's work of the expedition under his charge. There have been three seasons of field-work in 1869, 1871, and 1872; the areas embraced being Eastern California, nearly the entire part of Nevada south of the fortieth parallel, Western and Southern Utah, and Northern and Western Arizona. Some idea of the vastness of this field of exploration may be inferred from the fact that these surveys covered a belt of country equal in area to the whole of the New England and the Middle States, and that the reconnoissance lines of these surveys reach, at the least, fifteen thousand miles. They have been made in conformity with an act of Congress, the object of which is to establish an astronomical base, and the continuance of military and geographical surveys and explorations West of the hundredth meridian. Before the passage of this act, a comprehensive plan of surveys was submitted to the Engineer Department, which was ratified and adopted as the basis on which future surveys by Lieut. Wheeler should be made. The plan was, briefly, to divide the territory lying west of the hundredth meridian into eighty-five equal rectangles, and to work up each of them with rigorous exactness, and publish the results from time to time, in connection with an index-map of the whole area embraced, each small map being thrown up to ten times the size in the index-map, so that, by turning from one to the other, a complete knowledge of the country in its relative and detailed character can be obtained. The "importance," says Lieut. Wheeler in the communication he has sent me, "of accurate and frequent maps in connection with Western surveys has long been apparent to my mind, not only for their obvious convenience as maps of reference for the traveller and the emigrant, but as being the essential ground-work on which all explorations and

investigations should rest, and to which the after-labors of the geologist, the miner, and the capitalist should be referred." In connection with the perfected Engineers' map, a series of maps or charts might easily, he says, be arranged, covering a variety of topics, and exhibiting an epitome of all researches and scientific observations in the regions embraced. "In which service," he continues, "I may mention an historical map on which, with appropriate markings and colorings, the lines of the earliest explorers, and the area of each and every survey that has been prosecuted, should be carefully designated; a map of climatology, covering a multitude of features; an agricultural map, showing the lines of demarcation between different belts of country in their adaptability to cereals and fruit; a mineralogical map, necessarily fluctuating in accuracy and completeness, detailing the most recent and well-established specifications in regard to mining areas, either by itself, or in connection with the agricultural map; a map of mountain, desert, and arable land, with diagrammatic exhibition of areas where irrigation and Artesian wells are necessary and considered practicable; and so on, through quite an extended series. The amount of information which would be easily imparted by such a system of charts, and which could be extended at will to cover an increased variety of topics, would be very great."

As an important factor in the accurate making of maps, "astronomical observations," he writes, "have been employed to a large extent, and I am happy to state that I have been enabled to collect a measurably complete and valuable set of observations from a corps of trained assistants, stationed not only at different points in the territory surveyed, but at more distant points, such as Cheyenne, Fort Steele, and Green River Station on the Union Pacific road, from which communication was established with the main observatory in Salt Lake City,

the Mormon observatory at the latter place being placed at my disposal by Brigham Young."

"The importance of these observations," he says, "in perfecting a survey, where so many physical obstacles prevent accurate geodetic work, can hardly be overestimated. Whilst regarding map-work as the first in the line of the surveyors' and explorers' work, and as the basis for all that accompanies it, I have not allowed the various departments of meteorology, geology, natural history, mining, and other industries to be dwarfed in importance or restricted in action. Besides constant and valuable work in all these departments, much attention has been given to numerous allied topics, such as irrigation, routes for roads and railways, and the needs and possibilities of the different regions traversed. An attempt has thus been made, as should always be the case, to connect the work of the survey with the industrial interests and special development of the Western country, where science, pure and simple, can hardly be expected to take root as yet, but should go hand-in-hand with practical utility and the needs of the peculiar stage of development of the civilization which covers it."

The main office-work of the expedition is at present concentrated on the preparation of the five volumes which are to cover the season's field labors. These volumes are to be condensed to the greatest brevity possible, without the sacrifice of valuable material, and will comprise about one hundred and seventy-five pages quarto each, if possible. The result of the season will be segregated into appropriate departments, and the volume issued accordingly. The greater part of the thirteen of the projected eighty-five rectangles are in process of compilation, five having been added during the last year, and their publication in map-form, with an index-map, will be made as speedily as the careful mechanical execution of the work can be effected.

CAPT. BARLOW'S EXPEDITION TO THE SOURCE OF THE
YELLOWSTONE RIVER.

The reconnoissance of Captain Barlow has been in the basin of the Upper Yellowstone River, and was made in the months of July and August, 1871, for the purpose of examining the source of the Yellowstone; the result of which, in the form of an official report, was laid before Congress last April by the Secretary of War. The report is one of exceeding interest, giving a detailed description of the region traversed, being in part over the same field of operations covered by the geological expedition of Prof. Hayden. It embraces the general geography of the region, the mountain forms, the peaks and heights, the streams that connect with the Yellowstone, the waterfalls and cañons; an elaborate description of the basin of the Great Geyser, or hot spring, "a thorough solution of the wonders of which," says Capt. Barlow, "is to be attained only by long and patient observation by a corps of observers at different points;" the thermal springs; the calcareous deposit known as Soda Mountain; the mud volcanoes and the lakes which are tributary to Snake River. From the summit of a mountain 10,400 feet above the level of the sea, which Captain Barlow named Mount Hancock, he and his party obtained what he calls an unparalleled view of a vast extent of country, bounded by the Gallatin Mountain and Elephant's Back on the north, the Yellowstone range on the east, the Wind River range on the south, and the Great Teton range on the west. To the report is attached a most valuable map of the region traversed, delineating the curvatures of the mountain forms, the position and shape of the Yellowstone Lake, and the course of the great cañon of the Yellowstone. The meteorological records and the numerous and interesting specimens collected in this reconnoissance were unfortunately destroyed by the great fire in Chicago.

CAPT. JONES'S EXPLORATION IN THE UINTAH MOUNTAINS.

The exploration and surveys of Capt. W. A. Jones have been in the Uintah Mountains in Utah; the Uintah range is a spur of the Wahsatch Mountains, beginning in lat. $40^{\circ} 30' N.$, with an altitude of about 12,500 feet, and thence tending north-easterly to Green River, where the spur terminates. The extreme elevation of the range is in the vicinity of Gilbert's Peak, where the mountains reach to about 13,500 feet, and the whole region is one hitherto comparatively unknown. The object of this expedition was to ascertain the character and extent of the valleys through which the streams run flowing from these mountains; the nature of the timber, and the adaptability of the valleys for cultivation and settlement, and especially the examination of the country in the vicinity of Green River, with reference to the supposed existence there of large mineral deposits. He found the mountain-slopes covered with extensive forests of young growth, showing that extensive fires have ranged there for long intervals. The valleys were numerous, deep, and narrow, extending quite to the summit. The enormous basins that range along either side of the summit-line, he thought, from their position, must be filled in the winter with great drifts of snow, furnishing in the summer a continuous supply of water to the numerous mountain-streams. The whole region, mountain and plateau, he says, is especially adapted for grazing, grass being found everywhere, even to the mountain-summit; and, as there is always water, he thinks that a pastoral people could live quite comfortably in these mountain-valleys. He speaks highly of the region watered by the North Uintah River, having everywhere a superabundance of grass, wood and water, and a climate incomparably fine. The mineral deposits were found to be unimportant, and a noticeable feature of the whole region was the scarcity of birds, reptiles, and insects.

PROF. POWELL'S EXPLORATION OF THE COLORADO RIVER.

Prof. J. W. Powell has, during the year, continued his survey of the Colorado River, under the auspices of the Smithsonian Institution, and has made his second preliminary report. He has continued the examination of the wonderful series of cañons along the course of the Colorado, and has visited a group of volcanic mountains north of the Grand Cañon, to which he has given the name of the Uinkaret Mountains. The work done during the year has developed a most remarkable series of faults and folds in the earth's crust, which, in the opinion of Prof. Henry, will be of the highest interest to the geologist.

An extensive series of faults running northerly and southerly across the Grand Cañon were examined ; some of them, as far as the Wahsatch Mountains. The fissures of these faults have been vents for volcanoes, and are from 50 to 200 miles in length. Discoveries were also made of coal, salt and metals. The number of the houses found of the prehistoric inhabitants of this region has, by the discoveries of this year, been increased to about one hundred ; one being situated on the crater of a volcanic cone. The collection of rock-inscriptions, or picture-writing, has been much enlarged. The Seven Cities, called by the Spaniards the Province of Tusayan, were revisited for ethnological purposes, and the passage of the Grand Cañon, in boats, was again successfully accomplished, although attended, at one time, by great peril in consequence of the sudden rising of the river during the night.

SURVEYS FOR THE NORTHERN PACIFIC RAILROAD.

The Northern Pacific Railroad has, during the year, been extended from Moorhead on the Red River of the North, to the Missouri River, opposite the mouth of the Heart River, a distance of 198 miles, making, so far, a

continuous line from Duluth, at the head of Lake Superior, of 450 miles, showing the energy and celerity with which this great work has been carried on. The surveys in connection with the work have been very extensive, embracing a reconnoissance upon the Missouri River of 2,300 miles; a preliminary survey east of the Rocky Mountains of 250 miles; one of the like character in the Rocky Mountains of 700 miles, and upon the Pacific Slope and over the Cascade Mountains of 1,727 miles. There have been, east of the Rocky Mountains, amongst the mountains, and along the Pacific Slope 1,165 locations, the railroad surveys and locations amounting to 3,843 miles, or about twice the length of the main line between Lake Superior and Puget Sound. The data, from these surveys made during 1872, chiefly between latitude 45° and 49° N. will, when elaborated, add greatly to our geographical knowledge of this most important and interesting region.*

* As this survey is one of great interest in this country the following account of it, in detail, is given, from the communication received from Gen. Roberts:

During the season of 1872, the Company extended their road across the Territory of Dakota, on a nearly east and west line, from Moorhead, on the Red River of the North, to the Missouri River opposite the mouth of Heart River, a distance of 198 miles, making a continuous line from Duluth at the head of Lake Superior, of 450 miles.

Additional surveys were made from the mouth of Heart River to the western boundary of Dakota Territory, and beyond into Montana Territory, crossing the Little Missouri River and extending to the junction of the Powder River with the Yellowstone; a distance of 250 miles. This survey was conducted in the field under the direction of D. C. Linsley, Assistant Chief Engineer, and Gen. T. L. Rosser, Division Engineer, with a Government escort under the command of Gen. Stanley, U. S. A.

A survey was also made along the Musselshell River, from a point near its great bend to its sources in the Belt range, a spur of the Rocky Mountains, and thence over by a favorable pass, and down Sixteen Mile Creek to the Missouri River, and connecting at the "Three Forks" of the Missouri with the initial point, "departure point one," a distance of 173 miles. This survey was conducted in the field by Col. John A. Haydon, Assistant Engineer, with a Government escort under the command of Col. E. M.

W. H. DALL'S EXPLORATIONS IN THE ALEUTIAN ISLANDS.

Mr. W. H. Dall's investigation in connection with the geography and hydrography of the Aleutian Islands has been carried on during the year under the auspices of the Coast Survey, his headquarters being at Illuluk, Oonalaska. He has discovered in these islands the remains of a people antecedent to the race that now inhabits them. Around the sites of ancient villages he found burial-caves in which the dead bodies had been placed,

Baker, U. S. A. This survey disclosed an additional practicable railroad-line by the Sixteen-Mile Creek Pass, which connects advantageously with the several lines surveyed in 1871, across the main range of the Rocky Mountains.

A reconnoissance of the Missouri River was made during the season of 1872, extending from the proposed crossing of the Missouri at Heart River to the head of the Missouri River, at "departure point one," above mentioned, embracing about 1,300 miles—including a survey for a railroad around the Great Falls of the Missouri (21 miles). This examination also covered the reconnoissance of the River from Sioux City to Heart River. It was made for the purpose of ascertaining the character of the navigation in detail, and the work required for its improvement. It was conducted by Mr. Thos. P. Roberts, Assistant Engineer.

A survey was made on two additional routes crossing the main range of the Rocky Mountains; one by an extension of the survey of 1871, up the Wisdom River to its sources in the Bitterroot range of the Rocky Mountains, and across the summit to the head-waters of the Salmon River, and down the Salmon River to its junction with the Snake, or Lewis' Fork of the Columbia River; and thence down the Snake River to Lewiston at the mouth of the Clearwater, one of its tributaries, where it connects with the surveys of 1871. The surveys up the Wisdom River were conducted by Mr. M. T. Burgess, Assistant Engineer, and the surveys down the Salmon River were conducted by Col. W. W. de Lacy, Assistant Engineer.

The unfinished surveys on the Missoula River were resumed, and a line was located from the town of Missoula, in Montana Territory, down Clarke's Fork of the Columbia River to Lake Pend d'Oreille, a distance of 207 miles. This work was conducted by Mr. James Beltner, Assistant Engineer. A survey was also made by him from the Fishery Creek, over the Bitterroot range, down to the North Fork of Clearwater, connecting with the survey of Col. Eastwick made in 1871, from Lewiston up the North Fork.

An additional route was also traced over the main range of the Rocky Mountains in the vicinity of Mullan's Pass, passing in the vicinity of Helena,

and gayly dressed, some being encased in wooden armor. The bodies were so placed and arranged as to indicate their ordinary occupations;—men in canoes, as in the act of rowing; women dressing skins, holding children, etc., etc. This method of burying in canoes was common among the South-American Indians, but had not hitherto been known to have been practised by the North-American tribes. Mr. Dall is preparing an Arctic flora and fauna, and his forthcoming work will be of interest alike to the geographer, the archæologist, and the naturalist. This very capable and industrious young

by Mr. T. P. Roberts, Assistant Engineer, making a shorter line than the route via Ten-Mile Pass, surveyed in 1871.

In addition to these, a large amount of surveying and location of lines was accomplished during 1872, on the Pacific Slope, westward of the region already referred to, under the immediate direction of Thomas B. Morris, Division Engineer.

A line was located along the Columbia River, by James F. McCabe, Assistant Engineer, from Kalama to the mouth of Snake River, 250 miles; another by R. A. Habersham, Assistant Engineer, from the Cascades of the Columbia to Portland, on the Willamette River, 42 miles; the track of the main line from Kalama northward toward Puget Sound was extended 40 miles, to within 15 miles of Olympia, which is at the southern extremity of the Sound; while a location was made along the eastern side of Puget Sound to Selhome, on Bellingham Bay, 232 miles from Kalama. These locations were made by R. A. Habersham and Geo. H. Birnie, Assistant Engineers.

Lines were also run from the main line to various points on Puget Sound. Preliminary surveys were made between the mouth of Snake River and Lake Pend d'Oreille, by Mr. Hubert C. Ward, Assistant Engineer. The line was afterwards located over the same general region by Col. P. G. Eastwick, Assistant Engineer.

Mr. Ward made a survey from Lake Pend d'Oreille across the Columbia Plains to the Wenatchee, and up the river to the summit of the Cascade range of mountains, where he was met by a line surveyed by Mr. J. T. Sheets, Assistant Engineer, from Puget Sound up the Skagit River. These surveys give the shortest practicable line between Lake Pend d'Oreille and Puget Sound.

Mr. Ward surveyed several passes in the Cascade range, bringing them into connection with the lines just mentioned; so that much has been added to our topographical and geographical knowledge of the Columbia plains, and of the Cascade range of mountains.

explorer has been recently engaged in hydrographic explorations in the Northern Pacific, and has just returned to San Francisco, where he is preparing the report of his latest labors for the Government.

THE HYDROGRAPHIC BUREAU'S SURVEY OF THE NORTHERN PACIFIC.

An expedition has been organized by Commander Wyman, Chief of the Hydrographic Bureau of the Navy Department, for a more complete geographical exploration of the seas between our Pacific coast, China and Japan, and for the construction of more accurate charts; our increasing and important commerce in this direction demanding a more accurate survey of this part of the Pacific. An observer has been stationed during the year at St. Paul, in the Aleutian Islands, by the Signal Service Bureau, which observer, in addition to his meteorological duties, is to examine as far as possible the temperature of the sea in that vicinity, to note the tides, the passage of ice through Behring Strait, the movement and temperature of the Japanese current, if arrested and thrown upon the American coast by the blocking-up of the Strait, and to preserve specimens of the drift that may be picked up.

THE DARIEN EXPEDITION.

In the winter of 1870, the Government of the United States sent out an expedition, under Commander T. O. Selfridge, U. S. N., to explore the practicability of the several routes suggested for an interoceanic canal through the Isthmus of Darien. He surveyed the several proposed routes, commencing at Caledonia Bay and the Gulf of San Blas, and found them to be totally impracticable. In the winter of 1871, another expedition was sent out under the same commander, to explore the route by the Atrato and Tuyra rivers, which was done, and was likewise found impracticable. Another

route was also surveyed by the way of the Atrato and Napipi rivers. This route the exploring party were unable to examine as fully as had been desired, in consequence of the coming-on of the rainy season ; but they succeeded in completing a line of survey from the Pacific to the Atrato, and the indications were so favorable that the Government sent out another expedition at the close of last year, under Commander Selfridge, to complete the survey. Commander Selfridge is to begin on the Pacific side in the Bay of Cupica, about ten miles below the former points of exploration, where he expects to find a depression. Very favorable expectations are formed in respect to the result of this survey ; and if a canal by this route be practicable, and should be constructed, it would reduce the distance for sailing vessels between New York and Hong Kong from 110 to 83 days, making a difference of twenty-seven days. There is also an expedition for the survey of the Nicaragua route, under the direction of Commander Lull, U. S. N., which our member, Mr. Body, who is familiarly acquainted with the different parts of the isthmus, thinks will prove to be the most practicable. In a few months we shall have definite information in respect to both of these routes.

THE AMERICAN PALESTINE-EXPLORING EXPEDITION.

The American Palestine-Exploration Society has recently despatched an expedition to Syria, under the charge of Lieut. E. Z. Steever, of the U. S. Engineer Corps, for the exploration of the country east of the River Jordan, and of the northern part of Syria. The expedition consists of Lieut. Steever and three associates from this country, with whom will be united, in the field of exploration, a certain number of educated and trained natives of Syria, making together a very effective body for the prosecution of the geographical and archæological labors of the expedition, which will extend over a period of three years. The expedition is one of great interest to

the geographer, the Biblical scholar, and the archæologist, as the region to be explored is almost unknown, and is one to which the attention of those interested in these respective fields of inquiry has long been directed.

THE SIGNAL SERVICE.

Nothing in the nature of scientific investigation instituted by the National Government has proved so acceptable to the people, or has been productive, in so short a time, of such important results, as the establishment at Washington of the Signal Service Bureau. It has been in operation only since November, 1870, and in this limited period it has become, through the efficiency of Brig.-Gen. A. J. Myer, the Chief Signal Officer, and his three able assistants, Profs. Cleveland Abbe, Thompson B. Maury, and the Acting Signal Officer, Lieut. R. Craig, one of the most complete organizations of the kind in the world.

At the commencement of 1871, the territory occupied by the stations of observation was mainly that of the United States, — to the east as far as Portland in Maine, thence along the Atlantic coast and the Mexican Gulf, very nearly to the Rio Grande, and along the southern shores of the great lakes, and throughout the interior, as the interests of the Service required. During the year reports were also received from stations located at wide intervals on the elevated plateau lying between the Missouri valley and the Pacific Slope, and from three points upon or near the Pacific coast.

During the past year the Service has been extended within the United States by the addition of several stations lying between those which were already established, and of several points of observation located in the valley of the Red River of the North, the peculiar meteorological conditions of which furnish an interesting source of study.

Beyond the United States, through the coöperation of

the Canadian Government, the Service has been extended northward, in the valley of the Red River, to Fort Garry, in Manitoba; thence along the northern shores of Lakes Huron, Erie, and Ontario, and down the valley of the St. Lawrence as far as Quebec.

Reports are also received from Halifax, Nova Scotia, and it is thought that arrangements will be made by which reports may be had from the islands of Cape Breton and Newfoundland. From the localities enumerated, telegraphic reports are received daily at the Chief Signal Office at Washington, and from them are deduced the daily forecasts of the weather. This branch of the Service has proved especially valuable, a comparison of the daily forecasts or probabilities with the meteoric condition, as afterwards ascertained, having given up to November 1st, 1871, an average of sixty-nine per cent, and from that date to October 1st, of last year, an average of verification of seventy-six per cent.

The summit of Mount Washington, N. H., has been occupied as a signal station for the past two years, and Gen. Myer expects to obtain reports from some of the loftier summits of the Alleghanies farther South during the present year. It is also probable that reports will be received from some peak of the Rocky Mountains during the ensuing summer.

As soon as it is practicable it is the intention of the department to establish a station of observation in the Sandwich Islands, from which, it is hoped, warning may be received of any meteoric disturbance originating perhaps on the coast of Asia, and destined to reach the Pacific coast of the United States.

It is also expected by the Chief Signal Officer that, during the present year, arrangements will be made for the receipt of telegraphic reports from various points in the West India Islands, which, it is hoped, may enable the department to announce the approach of many of these cyclonic storms, the presence of which is now only

known when they strike the southern coasts of the United States. As an additional aid in the tracing of these storms, regular observations are made upon several of the steamships plying between New York and the Isthmus of Panama, and it is thought that arrangements will be made whereby it will be possible to obtain a continuous record between this country and Europe by means of regular observations upon the transatlantic steamships.

Gen. Myer remarks in his report that sometimes observations made in Great Britain seem to indicate the presence there of disturbances traced out to sea from our shore; and, if the arrangements anticipated should be carried out, there will be from our remotest stations on the Aleutian Islands to Great Britain a connected line of observation, extending over nearly half the circumference of the earth. It is impossible to estimate too highly the importance of regular observations of this nature, in connection with those which have now been extended over a considerable portion of Europe. Humboldt, in treating of magnetic observations, has especially dwelt upon the greater value of those which have been regular and continuous over those that are taken at intervals, no matter how widely, over the earth's surface, and this remark applies with equal force to meteorological observations. "The Signal Service," says a writer in the *New York Herald*, "has given timely forewarning of the heavy storms upon our sea-coast and lakes, of the heavy rain-falls and floods, of the early arrival of frosts, and of the cold tidal air-waves which cover the land with snow;" and this kind of information has become so varied, extensive, and valuable, that it is in contemplation by Mr. E. R. Esterbrook, of the Signal Service of this city, to establish a monthly meteorological journal for the more regular and general diffusion of the facts, the deductions to be drawn from them, and the advancement of the

science of meteorology generally, which, I trust, will receive, as it deserves, a wide public support.

METEOROLOGY.

At the anniversary meeting of the Meteorological Society of London, last August, the president, Mr. Tripe, in his annual address, called attention to the valuable results obtained through meteorological observation upon the course of epidemics and the influence of high and low temperatures upon the public health. He said that the conclusion among meteorologists was tolerably uniform that very cold and very hot weather induce an increase in the number of diseases and deaths; that a cold, wet summer always coincides with a less amount of sickness and fewer deaths than a hot, dry summer; that very cold weather causes a great increase in the sickness and mortality of any given population; and that the increase extends to all kinds of diseases. That, for instance, small-pox increases as the temperature sinks below, and scarlet fever as it rises beyond, certain points; and that the influence of all other meteorological elements upon disease is almost inert as compared with temperature. He expresses the opinion that statisticians will eventually be enabled to determine the precise relations which exist between the state of the public health and meteorology; so that, in addition to the knowledge which these observations give us of the movements of the atmosphere and of the law of storms, we have also the expectation that they will shed additional light upon diseases and their causes.

AMERICAN GEOGRAPHICAL PAPERS.

In closing this record of our own labors during the year, I would call attention, finally, to the many valuable papers that have appeared in the course of the year in various periodicals, among which may be especially named the paper of Prof. J. Le Conte, of California,

entitled, "A Theory of the Great Features of the Earth," in *Silliman's Journal*,—a paper of great interest and value,—in which the professor does not assume to give an entirely satisfactory theory (for he concedes that the state of our knowledge does not yet admit of it), but claims to direct attention to what he insists is the true direction of inquiry. The paper of J. W. Foster, LL. D., in the *Naturalist*, on the mountains of Colorado, their topographical features, geology, vein-phenomena, climate, the effects of electrical phenomena in their vicinity, and the evidence of post-glacial action; and Mr. Muir's observations in the *Overland Monthly*, on the glaciers of the Sierra Nevada. Dr. J. P. Widney's paper, in the same periodical, on the Colorado desert, which he supposes, at a past period, to have been a portion of the Gulf of California, which then, he thinks, extended about 200 miles above its present limit. This upper portion, in his opinion, was cut off, upon the east side, by the Colorado River, depositing quicksand in its thick floods and a deposit of red mud from the great plateau of Northern Arizona, until the upper part, with an area of 180 miles in length and an average of thirty miles in width, was completely separated from the Gulf, and elevated into a barren desert, becoming, as he says, a disturbing element in the climate of Southern California. It is now, to use his own language, "a huge furnace, from which withering blasts make forays upon the favored territories around;" and he calls attention to the importance and possibility of turning the river into it, and converting what is now a desert into an inland lake. And, lastly, Prof. T. B. Maury's paper, in the *Popular Science Monthly*, upon the Law of Storms, as developed by the collected observation of the U. S. Signal Service.

POPULATION OF THE UNITED STATES.

The Government published during the year the results of the census of 1870, by which it appears that the total population of the United States is 38,589,377.

The mixed population of the city of New York consists of: Native-born, 523,198; foreign-born, 419,094,—the excess of the native over the foreign being 104,104. The foreign population of the city of New York is thus distributed:

Irish	201,999
Germans	151,216
Austrians	2,737
English and Welsh	25,026
French	8,265
Scotch	7,562
Canadians	4,419
Poles	2,393
Swiss	2,178
Swedes and Norwegians	1,930
Dutch	<u>1,237</u>

The largest foreign population in proportion to the whole is in the city of New York. In this order Chicago stands next, then St. Louis; after St. Louis, Cincinnati, and then Philadelphia. In New York and Philadelphia the Irish outnumber the Germans. In Chicago, St. Louis, and Cincinnati, the Germans outnumber the Irish. In Cincinnati they are nearly three times as great; in St. Louis, nearly double; and in Chicago, about one-third more. In Philadelphia the Irish are nearly double the number of the Germans, and in New York they are about one-third more. The foreign population concentrates chiefly in the commercial cities, and in the manufacturing and mining districts of the eastern portion of the United States, and is largely distributed over the Western States. In the Western States the foreign emigrants are mainly found in the vicinity of lakes and rivers. They rarely settle in the mountain-districts, and prefer the wooded

country to the prairie. The Scandinavians seek the far States of the North-west, three-fourths of the Swedes and Norwegians being in Minnesota. The Irish are in the large cities, and in Massachusetts, in Connecticut, in North-western New York, in Northern Illinois, and in North-eastern Ohio. The Germans are largely represented in the cities, are widely extended over the Western States, and have avoided New England. The English and Welsh are found chiefly in or about the cities of New York, Boston, and Philadelphia, or wherever there are coal-fields or great iron-works. The Latin races, so-called, are relatively small. They do not, including Mexicans and South-Americans, equal the emigration from the kingdom of Bavaria alone. The Italians are but 17,149, and the Spaniards only 3,701, and of this small number one-third are in New Orleans.

ARCTIC EXPLORATION.

In the beginning of the year great interest was manifested in the subject of Arctic exploration, for, apart from the geographical achievement of reaching the North Pole, it has now become apparent that Arctic exploration is of the highest importance in a scientific point of view, when it is accompanied with meteorological, barometrical, and astronomical observations, and an investigation of the Arctic fauna, flora, geology, and paleontology, in the latter of which departments of knowledge it has proved to be one of the most instructive of fields for the light which it sheds on the past physical history of the globe. It was hoped that this year would be especially propitious, as the summer of 1871 had been very favorable to exploration. The inhabitants of the most northerly settlement in Greenland told Dr. Bessells, of Capt. Hall's expedition, that there had not been so warm a summer for fifty years, and the effect of it was seen in an enormous drift of ice-fields southward from Smith's Sound and Baffin's Bay along the coast of Newfoundland from

February to May. "It may be affirmed, without exaggeration," says a writer from St. John's, Newfoundland, in May last, "that a river of ice, varying from 60 to 200 miles in breadth and 2,000 miles in length, has been for three months incessantly pouring its contents into the tepid waters of the Gulf Stream."

The experience of the two preceding years, 1869 and 1870, also gave great encouragement, especially in respect to that region of the Arctic between Spitzbergen and Nova Zembla. Capt. Palliser, a walrus-hunter, reached, in 1869, half a degree beyond Cape Nassau, and in his opinion, could then have sailed entirely around Nova Zembla. Capt. E. H. Johannsen, without any difficulty, traversed the entire Carian Sea twice, following its east and west coast without being disturbed by ice or seeing any considerable quantity of drift-ice in the entire sea. In 1870, the Norwegian fishermen reached the north-east coast of Nova Zembla, and remained on the coast until the latter end of October. During the same year Captain Johannsen sailed around the whole of Nova Zembla, which had never been accomplished before, and, in 1871, Captain Mack sailed along the west coast of Nova Zembla, 500 nautical miles, and reached Cape Nassau in the beginning of July, finding upon the islands violets, buttercups, and other flowers.

All this was very encouraging, so much so that the eminent geographer Petermann confidently expressed the conviction that a stanch steamer could pass from the Scandinavian coast through the Arctic Ocean to Behring Strait and return the same summer, to which should be added, that the result of the inquiries made at the Helder a century ago was, that the Dutch fishermen had always penetrated farther north in this part of the Arctic than in any other. Great expectations were consequently formed of what would be accomplished during the past year in this particular locality, which, I regret to say, have not been realized. A Russian expedition was talked

of, but nothing came of it. The long-projected French expedition for the exploration of the region between Nova Zembla and Behring Strait, which was to be commanded by Captain Mack, an officer experienced in Arctic exploration, it was anticipated, would sail; but, for some reason, the expedition was indefinitely postponed. Five expeditions, however, started,—Mr. Leigh Smith, in his yacht the “Samson;” two Norwegian expeditions, a Swedish expedition, and the Austro-Hungarian expedition. To this should be added explorations and discoveries by Capt. Nils Johnson, in Norwegian vessels upon the east coast of Spitzbergen.

Mr. Leigh Smith sailed in his yacht, toward the close of July last, with the intention to push his way to the east coast of Greenland, but was stopped by the ice. He then determined to attain the highest latitude possible, and afterward to attempt the examination of Spitzbergen. But it proved to be an unusually close season both on the western and the northern side. He reached only to $80^{\circ} 30' N.$ lat., less than he had attained the previous year. The yacht was beset by ice, sprung aleak, and Mr. Smith was compelled to return.

The Norwegian expedition consisted of two vessels, commanded by Capts. Jensen and Hansen. Its object was the circumnavigation of Spitzbergen. It was equally unsuccessful. One of the vessels damaged her screw, which disabled her; and the other, from inability to find an entrance through the masses of ice, was compelled to return to Bergen.

The Swedish expedition is one of great interest. It consisted of three vessels, — the steamer “Polhem,” the steamer “Gladden,” and the brig “Ouke Adam” — the expedition being under the general superintendence of Prof. Nordenskjöld, the eminent Swedish *savant* and Arctic explorer. This expedition was mainly equipped by funds subscribed in Gothenburg; and, from the accounts which I have read of its fitting out, it is, I

should think, for the combined purpose of scientific investigation and geographical discovery, the most thoroughly equipped expedition that has ever entered the Arctic seas. It started last summer, and the plan agreed upon was to pass the summer and autumn in explorations upon the east coast of Greenland, to winter in Mossell Bay, and next spring to reach the pole by sledge-travelling, for which every preparation had been made. Whether the expedition succeed in this or not, its further work will be to explore the Eastern Spitzbergen Sea, and to map the whole of the eastern lands, including the mysterious Gillies land; and a material part of the labors of these Swedish scientists will be to take meteorological, thermometrical, and magnetic observations, and do what they can for the science of zoölogy.

The steamer "Polhem" is the principal vessel. The other two were to have returned at the close of the summer; but as they failed to do so, great anxiety was felt in Sweden, for these two vessels had not been equipped to pass an Arctic winter. For this purpose a steamer—the "Albert"—was despatched with supplies, the hope being entertained, notwithstanding the lateness of the season, that she would be able to communicate with them. I am happy to say that news was received two months ago that the three vessels were in Mossell Bay, where they were to pass the winter—a point at which the succor brought out by the "Albert" may possibly reach them. Another expedition sailed from Sweden during the year to establish a colony on the southwest coast of Spitzbergen, the object being mercantile,—the obtaining of phosphates for artificial manure. If such a colony be established in Spitzbergen, it will be of great use in explorations, like the Danish settlement in Greenland, as a point to keep up communication and a depot for supplies.

The Austro-Hungarian expedition consisted of two vessels,—the steamer "Tegethof," the chief officers of

which are Lieutenants Weyprecht and Payer, and the yacht "Isbjorn," of Count Wilczek. It will be remembered that Weyprecht and Payer, in the preceding year, made an exploration of the sea between Spitzbergen and Nova Zembla, in the yacht "Isbjorn," which was preliminary to the present expedition. The object of the expedition, which was to be mainly carried out by the steamer "Tegethof," was to penetrate the sea east of Nova Zembla, and proceed, if possible, as far as Behring Strait, the main object being to explore the land lying to the north in that direction, which, it was supposed, would be facilitated by the warm currents of the Siberian rivers that terminate in this portion of the Arctic basin. If no land should be discovered at the North, then the "Tegethof" was to winter at Cape Tscheljuskin, the northernmost point of the continent of Asia. If it should prove impossible to reach Behring Strait or to return, then the yacht "Isbjorn" was to be abandoned, and Count Wilczek, his scientific associates and crew, were to return in boats by way of one of the Siberian rivers. The vessels reached Tromsø in June, whence the "Tegethof" proceeded and sailed along the western coast of Nova Zembla, encountering very thick ice; and Count Wilczek sailed to Spitzbergen, where, to the north and east, the sea was tolerably open. He attempted to ascend the Horn Sound, but, being unable to do so, sailed southward, where he encountered heavy masses of ice in the vicinity of Hope Island; upon which he sailed for Cape Nassau, Nova Zembla, and had great difficulty in forcing his way through the ice. On the 12th of August the two ships met, in about lat. 76° N., and after keeping company two days they parted, as the ice was everywhere forming; the "Tegethof" to proceed to the North and Count Wilczek sailing for the mouth of the Petchora River, which he succeeded in reaching after great difficulty. Here he and his party abandoned the yacht and ascended the Petchora with

their boats for six weeks, when they reached Perm, and from there they found their way to Moscow, about two months and a half ago.

Count Wilczek, in his communication to the Vienna Geographical Society, regrets that the season was so short, considering the rich material they found in Spitzbergen, in a geographical point of view, and says that both it and Nova Zembla yielded a rich harvest of botanical and zoölogical matter. Having with them good instruments, they made meteorological observations and coast and inland surveys. The "Tegethof" was heard from last on the 16th of August. The weather was exceptionally severe, but still Lieut. Weyprecht thought that they would be able to work round the northern part of Nova Zembla, and winter on the Siberian promontory, Cape Tscheljuskin, or as it is otherwise spelled, *Cheljuskin*. He says that they found the modern charts of the coast of Nova Zembla utterly untrustworthy, and that the old Russian charts were the best. He was, unfortunately, unable to make any corrections, as the continued prevalence of fogs and clouds prevented astronomical observations.

The unfavorable character of last summer for exploration, as shown in the result of these several expeditions, which may be attributed to the nature of the preceding winter, which was exceedingly cold, and the fact of the intense cold of the present winter, give rise, very naturally, to some anxiety respecting Capt. Hall and the "Polaris," which has not been heard from since August 5th, 1871. He was then off Tossak Tussuissuk, lat. 73° 21' N., lon. 56° 5' W. All on board were well. The sea-going qualities of the vessel had been tested and found favorable; his complement of sixty Esquimaux dogs had been obtained, and Hans Christian, the well-known dog driver, with his family, had joined the expedition. He met, at Hollensburg, Baron Von Otten returning from the Swedish expedition, who furnished

him with maps, copies of his log, deep-sea soundings, etc. I earnestly urged Capt. Hall, before he left, to abandon the attempt he proposed making by Jones's Sound and to go by Smith's Sound and Kennedy's Channel, following up the route of Kane and Hayes, which, I was convinced, was the route that offered the most advantages for an attempt to reach the pole, and he concluded to defer his decision until he should reach the Arctic. It appears from the communications received that Baron Von Otten advised him to go by Smith's Sound; and when last heard from he had concluded to do so, and on the 24th of August, 1871, with a full roster of thirty-eight persons, he sailed in his little vessel for Smith's Sound. The advantages of this route over all others, in an attempt to reach the pole, was earnestly advocated last April before the Royal Geographical Society of London by Capt. Sherard Osborn, R. N., upon the grounds that the nearest approach to the pole had been made in that direction, that it was attended with less risk than any other, and offered greater opportunities than the other routes for scientific observation; and this distinguished Arctic explorer and author was supported in these views upon that occasion by the eminent Arctic explorers Admiral Back and Sir Leopold McClintock. Admiral Back said that he approved of every word that Capt. Osborn had uttered; that the Arctic Committee had seriously considered the question, and had come to the conclusion that the route which offered the greatest probability of success was by Smith's Sound, or, as he expressed it, the route taken by the gallant American, Dr. Kane; and Sir Leopold McClintock said that he believed that that route afforded the best chance of reaching the North Pole, and also the safest retreat in the event of a reverse. It is the route which our own eminent explorer, Dr. Hayes, has persistently advocated for years, and is also the one recommended towards the close of the year by the various scientific societies that united in an

application to the British Government to fit out another polar expedition.

It is gratifying, therefore, to feel that Capt. Hall is at least in the right direction, and that the summer of 1871, when he sailed for Smith's Sound, was one of the most favorable seasons that have been known for many years. Still, the severe winter that followed, and the severity of the present winter, very naturally make us anxious, as his vessel was not specially built for service in these northern regions and is provisioned only for the year 1873; and it is very much to be regretted that the British Government, which has achieved so much in the field of Arctic exploration, did not respond to the call made upon it to send out an expedition this spring. Whilst upon the subject of the safety of Capt. Hall's expedition, I may mention that Mr. Howarth, in some recent views upon the temperature of northern climates, calls attention to the impression prevalent among whalers, that excessively severe winters in more temperate latitudes are generally accompanied by an unusual degree of mildness in polar regions.

In the year 1594 Barentz, the Dutch navigator, sailed around the north-east point of Nova Zembla, where, finding his further progress blocked by ice, and being unable to return, he and his crew built a hut in a little bay, where they passed the winter and underwent an amount of suffering that is almost without a parallel in the history of Arctic exploration. There is no record that any navigator since has passed the north-east point of Nova Zembla until the year 1871, when Capt. Karlsen, the master of a small Swedish sloop, of sixty tons, called "The Solid," succeeded in doing so and sailing into the little bay. He found the hut still standing, with everything remaining exactly as Barentz had left it 276 years ago. Its interior corresponded exactly with the old engraving of it attached to Gerard De Veer's narrative of the voyage, published in Amsterdam in 1598. The sleeping-berths,

the halberts, the muskets, the clock upon the wall, were in the same place. The hut had evidently never since been entered by man. Upon the outside were several large puncheons, and heaps of the bones of the bear, the reindeer, the seal, and the walrus. In the interior were the instruments and books used by the inmates, one of the books being a Dutch copy, in excellent preservation, of Mendoza's Description of China, the country they had hoped to reach by a supposed north-east passage around the pole. A flute was found that still gave out a few notes ; a pitcher of Etruscan shape, exquisitely engraved, and drinking-vessels, recalling the touching incident, mentioned by De Veer, of these poor fellows, in the midst of their intense sufferings, asking their captain to let them make merry on Twelfth Night with a little sack and two pounds of meal,—an indulgence bringing to their minds the assemblage of friends, wives, and children, then in the enjoyment of that festive night in their far-off homes in Holland. The articles, about 150 in number, consisting, in addition to those named, of working-tools, cooking-vessels, pictures painted upon tin, an iron box, etc., were brought by Capt. Karlsen to Hammerfest, where these interesting relics were purchased for £800 by an English gentleman named Ray, then on his way to Lapland, who transferred them to the Dutch Government for the price he had paid for them, and during last year they were received in Holland, and are at the Foreign Office at The Hague until the final place of their deposit shall have been settled. All who have read the thrilling account of this early voyage, and of the fate of the intelligent, persevering, and brave commander, whose name has been given to the great bay that washes the western shores of Nova Zembla, will feel an interest in the recovery and preservation of these humble memorials of one of the most heroic of Arctic explorations.

GENERAL GEOGRAPHICAL LABORS.

In leaving the Arctic and our own country, I may enumerate, among the matters of general geographical interest, the Government surveys that are in progress and which are connected with the publication of maps in Great Britain, Sweden, Norway, Denmark, Belgium, Italy, and Austria. The Russian surveys in the Caucasus, in Eastern and Western Siberia, and in Turkestan, and the great survey in India, trigonometrical, topographical, and geological, which has been instituted by the British Government, the results of the two first years of which have recently been published in India. Observations upon changes that have taken place in the earth's level upon the northern shores of Africa, upon the coasts of Patagonia, and evidences observed of the past depression of a large part of South Africa. The proposed new measurements of arcs of the meridian, one to be measured by Gen. Bayer, from Christiania to Palermo, and a proposed prolongation of the French measurement of 1797 across the Mediterranean in the vicinity of Algiers. The fact observed by Mr. Hornstein, of Vienna, that terrestrial magnetism affords a measure of the period of the sun's rotation upon its axis, the observations of Mr. Hornstein leading him to believe that the three elements in terrestrial magnetism—the declination, inclination, and horizontal intensity—run in a cycle of 26.33 days, corresponding with the time of the sun's rotation upon its axis, which is also 26.33 days. Discussions carried on during the year respecting ocean-currents and the general laws of ocean-movements, chiefly between Dr. Carpenter and Mr. Croll; the former maintaining that the oceanic circulation and currents arise from causes produced by the difference of the temperature of the ocean at the equator and at the poles, and the latter disputing this hypothesis, and believing that the oceanic movement is due to other causes. Speculative discussions as to whether the interior of the earth is solid or

fluid. The exploration of the group of islands in the South Pacific known as the New Hebrides, in 1871 and 1872, by Lieutenant A. H. Markham, an interesting and valuable account of which was communicated by him during the year to the Royal Geographical Society. The expedition of the "Challenger," fitted out by the British Government at the instance of the Royal Society, for the examination of the great ocean basins of the world, in which will be embraced the contour and form of the ocean's bed, its currents and temperature at various depths; the animals, plants, and other objects found in it in different regions; the transparency of its waters in different parts of the world; the philosophy of the tides; and the geology, ethnology, biology, and botany of those parts of the earth above the waters which may be visited by the vessel. With all of this are to be connected determinations in respect to longitude, daily magnetic observations, hourly meteorological observations; and the relations of barometric pressure to latitudes are to be carefully elucidated. The Atlantic, Pacific, Antarctic and Arctic oceans are to be visited in the course of this voyage, which it is supposed will occupy three years and a half; an expedition, that, in the largeness of its conception and the completeness of its equipment, is worthy of the scientific character of the nation that organized it.

An Italian expedition for a voyage around the world has also been instituted, consisting of two vessels, the "Garibaldi" and the "Corvelli." I am unable to state the nature of the investigations contemplated, but infer from what is said respecting it that attention will be especially paid to the hydrography and to an improvement of the cartography of the Pacific Ocean.

ARCHÆOLOGICAL DISCOVERIES.

Amongst the archæological results of the year may be named the discovery of additional lake-dwellings, or, as

they are called, lacustrine villages of the prehistoric inhabitants of Europe at Bienne, in Switzerland, and in other parts of Europe. The discovery of the skeleton of a man at Mentone, in France, which is supposed to be of great antiquity. The exploration, by Mr. J. Stevens, of pit-dwellings or tent-circles, at Finkly, near Andover, in England. The discovery, by Col. W. T. Roberts and a party of explorers, of the ruins of what was once a populous city, covering an area of about three square miles in an uninhabited and desolate part of Arizona, beyond the San Juan River, southward and westward, about ninety miles from the boundary lines between Arizona and Utah, and about the same distance westward from a prolongation of the western line of Colorado. The ruins were surrounded by a wall of sandstone about ten feet thick, neatly quarried and dressed, which had crumbled away in many places and was partially buried in the sand that had drifted around it. The entire area within the wall had formerly been covered with houses, built of solid sandstone, without mortar, and which exhibited excellent masonry in their construction. The ruins consisted entirely of stone, not a stick of worked timber having been seen. On the north-west coast of Asia near the Hellespont or Dardanelles, excavations were carried on in the years 1871 and 1872, by Dr. Henry Schliemann, north of the village of Burnarbaski, and to the east of the River Scamander, which have resulted in the discovery, in his opinion, of the site and the remains of ancient Troy, the full details of which were communicated by him to the *New York Herald*, and fill six columns of the issue of that journal of December 21st, 1872 ; a discovery, which, whether it has or has not revealed the site of Homer's famous city, is of great interest as disclosing the ruins of successive settlements, one above the other, upon the same site, in strata of comparative regularity ; the upper part exhibiting the remains of wooden structures, below which were the ruins of the dwellings of a people who built with

unburned brick, and who from the religious symbols, the utensils, the implements and the pottery found, are supposed to have been an uncivilized people of the Arian race ; and at the lowest depth of all were the ruins of structures built with massive stones, where a wall was found of huge stones joined together with clay, and the ruins of a colossal tower of solid masonry, forty feet thick, built upon the primitive rock which Dr. S. thinks may have been a tower on the wall and the one which Andromache ascended to sweep the plain in search of Hector. The pottery in the lower strata showed an advanced knowledge of art, and a taste and opulence very far beyond those of the people whose remains were entombed in the successive layers above. Lastly, I may mention Gen. Di Cesnola's discoveries in the tombs in the Island of Cyprus, a collection gathered from the exploration of more than 8,000 tombs during the last three years, and embracing more than 10,000 distinct and different articles. Glass of all forms, fabrics, and varieties, terra-cotta, statuary of various kinds, sizes, and periods, in bronze and in stone ; vases, gems, and carved stones, jewelry, lamps, mirrors, weapons, utensils, implements, etc. Before this discovery few, if any, products of Phœnician art or manufacture were known, whilst here they are very numerous, combined with objects exhibiting the different stages of Egyptian, Assyrian, and Grecian art. As a collection representing the progressive development of ancient art, nothing like it has ever been obtained ; and it is gratifying to know that the collection has been purchased by John T. Johnson, Esq., of this city, and is to form a part of the Metropolitan Museum of Art of New York.

ASIA.

A great deal has been done during the past year to enlarge our knowledge of Asia, and especially of that part of it from which the civilized world has been so long cut off through the jealousy of the local Mahometan

rulers. The advance of the Russians in Turkestan has been followed by geographical explorations and surveys on their part, with which have been connected barometrical and meteorological observations, and the advance during the year of a Turkish force into Arabia Felix, and the occupation by it of Sanaa, the ancient capital of Arabia, and the modern capital of Yemen, will lead to a more extended knowledge of this fertile portion of Arabia, of which we know comparatively little since the visit of Niebuhr in 1763. In 1870, Capt. Miles and M. Werner Munzinger, C. B., explored a portion of the interior of the southern part of Arabia, extending from Aden over three degrees of longitude, and Baron Von Maltzan has since been engaged in making researches upon the geography of the western part north of Aden, between the Strait of Bab-el-Mandeb and 48° E. lon., the results of which he has communicated in an interesting paper to the Royal Geographical Society. A corps of English engineers, under Major St. John, in exploring routes in Central Asia for a telegraph, have traversed portions of Persia, upon the eastern boundaries of it, hitherto almost unknown; and Mr. Blanford, in connection with this expedition, has been examining the geology of the coasts of Persia and of Beloochistan, on the Persian Gulf and the Arabian Sea. The Russian Government has had under consideration a plan for connecting the Caspian Sea with the Black Sea by a canal, which, though it will be but the length of a German mile, is a work of such gigantic magnitude that it will require the labor of 32,000 workmen for six years to complete it. It is doubtful, however, whether the advantages, commercial or otherwise, that would result from connecting the two seas are of sufficient importance to justify the enormous expenditure that would be requisite for the execution of the work. A railroad is also projected eastwardly from Scutari on the Bosphorus, and south of the Black and Caspian seas, to

Teheran, in the north-eastern part of Persia; thence to Herat, in Afghanistan, and from there south-easterly to Shikapore, in India. This project is one in the interest of the British Possessions in India, and if undertaken would doubtless be an English enterprise. A much more feasible and practical railroad route across Asia, it is supposed, would be one to be built in the interest of Russia, from Moscow through Nizhnee Novgorod to Tomsk, thence to Irkootsk, and from thence south around Lake Baikal, and across the Khalkas desert to Pekin, in China. Well-informed Russian gentlemen, with whom I have conversed, regard this route as a very important one in respect to the country through which it would pass. They consider it feasible, and anticipate no serious difficulty in carrying the road across the Mongolian desert in its approach to China. Mr. Prjevalski, a Russian traveller, has been engaged in the exploration of the south and south-eastern portions of Mongolia to the northern boundaries of the Chinese province of Hansu. He designs to explore the Aliakhan Mountains, and expects to make his way to Russian Turkestan, across the western portion of Thibet. Mr. Fedchenko made an important journey through Khokan as far as Gulcha on the east, and to the Alai Plateau, and has collected a mass of information that will throw great light on the geography of that part of Asia. His journey in Southern Mongolia occupied ten months, and embraced a general survey of the country, meteorological observations, the collection of zoölogical and ornithological specimens, and a great variety of plants, insects, and specimens of minerals.

Mr. Staritzki, who has been engaged for five years in investigating the hydrography of the Sea of Japan, has returned during the year, and laid the results of his labors before the Russian Imperial Geographical Society. He has determined the longitude of thirty-eight different points within an area embraced between 15° N. lat., and 120° and 160° E. lon. His labors embrace observa-

tions on the coasts of Manchuria, the Island of Segalien, the Okhotsk Sea, Kamtchatka, Japan, and the Chinese waters; an examination of the temperature of the Sea of Japan at different depths; the measurement of various heights in Kamtchatka, in which was included the volcano of Koriah, which he found to be 11,000 feet high, and a large number of meteorological observations. Capt. Fisler, a Russian officer of engineers, has explored the River Ili from the extreme eastern limit of the Khanate of Kuljah to the Balkash Lake, in Asiatic Russia, into which the river flows.

The results of the expedition under Maj. Sladen, instituted by the British Government in 1869, to explore the trade route between Burmah and China by the River Irrawaddy to Bhamo, and thence to Momien, in China, have been published at Calcutta by Dr. Anderson, a member of the expedition. It is a work of great geographical interest, chiefly for the information it contains respecting the Irrawaddy and its sources, a river of the magnitude of the Ganges, which had remained hitherto unexplored. Capt. Burton, the well-known Asiatic and African traveller, has just published a work on the unexplored portion of Syria, and during the past summer he has been engaged in exploring certain parts of Iceland, of which we have little knowledge; collecting during his trip much geographical and anthropological information. A. Vambéry, the traveller in Bokhara, has given in Mr. Bates's *Illustrated Travels* an account of Dzungaria, or, as it is called on the maps, Soungaria, in the north-west corner of the Chinese empire,—a country recently conquered by the Russians, which extends to the north of Eastern Turkestan, and to the east of the Russian frontier, between 42° and 48° N. lat. And in the same work Mr. A. M. Cameron has begun the publication of a three years' journey in Borneo, the first part of which is especially interesting for a comprehensive account of the great Archipelago, of the islands of Sumatra, Luzon,

Celebes, Borneo, and Paqua, or New Guinea, written particularly with the view of calling attention to them as a new and vast field for exploration ; where, he says, reputation can be achieved as great as that of Livingstone. Signori Beccaria and D'Albertes are now engaged in an exploring expedition in Papua, or New Guinea, under the auspices of the Italian Geographical Society. It appears that they have been advised to attempt the western side as the most accessible, but have determined to adhere to their original plan of beginning with the exploration of the River Outanata. The corvette "Vittoria Pisani" has since sailed from Japan to Papua, to communicate with these Italian explorers, and to supply them with additional funds sent by the Italian Geographical Society.

AFRICA.

The African results of the year have been the rescue of Dr. Livingstone and the knowledge of the explorations of Dr. Schweinfurth in the regions west of Khartoum and to within three and a half degrees of the equator. The account of the extensive explorations of M. Alfred Grandidier, the French naturalist, in the Island of Madagascar, and the explorations and discoveries of Karl Mauch in the regions north-west of the Trans-vaal Republic.

DR. LIVINGSTONE.

The rescue of Dr. Livingstone, through the energy, intrepidity, and capacity of Mr. Stanley, in the successful carrying-out of the expedition instituted by our fellow-member, Mr. James Gordon Bennett, for the deliverance of the great African traveller, and the extensive nature of the discoveries he has made, have been so fully published in the journals of this country and of Europe as to dispense with the necessity of my doing anything more than to unite in the common congratulation interchanged throughout the world at this happy event. The limits of a

discourse embracing so wide a survey will not enable me to enter into any extended observations upon the Doctor's discoveries. I can only say that I share in the general impression that the great water-system he has been following up is not, as he supposes, connected with the Nile. This belief is founded upon Baker's measurement of the elevation of the Mwutan Nzigi, or Albert Nyanza, and Livingstone's account of the Lualaba River; the discoveries of Dr. Schweinfurth in the White Nile region; the fact that from Dr. Livingstone's account the Lualaba carries nineteen times as much water as the Bhar-al-Ghazel, the chief western tributary of the White Nile, and three times as much as the White Nile. These and other reasons advanced by Dr. Behm and Clements R. Markham, C. B., would seem to warrant the conclusion that the water-system which the Doctor has been exploring constitutes the chief source of the Congo, a river, at least as it approaches the Atlantic, of great volume, depth, and velocity. But this conclusion is disputed by Dr. Beke, a very competent authority on all African matters; and indeed it is a very hazardous thing to express any opinion upon the geography of the unexplored portions of Africa, as was found after the discovery of the curious course of the Niger. The southern part of the Mwutan Nzigi, or Albert Nyanza, has yet to be explored; and we must wait until Dr. Livingstone has completed his explorations, which will probably be accomplished in two or three years, for the solution of the problem. The last intelligence respecting the Doctor is that the supplies forwarded to him by Mr. Stanley had reached him, and that he had left Unyanyembe to complete his discoveries; also that his observations, which were brought to Zanzibar by Mr. Stanley, have arrived at the Cape, and are in the hands of Sir Thomas Maclear; that they contain some things that are new and interesting, are very voluminous, and that it will take two or three months to reduce them.

DR. SCHWEINFURTH'S EXPLORATIONS WEST OF THE
WHITE NILE.

Dr. Gustav Schweinfurth has been engaged, since 1868, in exploring Africa west of the White Nile, and has traced to its source the Bhar-al-Ghazel, the most important of the western branches of the White Nile. This gentleman, who appeared before the Berlin Geographical Society last May, has brought back a large amount of geographical information, which will go far towards settling, if it do not completely settle, the question of the sources of the Nile. He penetrated west as far as lon. 26° and south to within $3^{\circ} 30'$ of the equator; and, as Livingstone has penetrated to nearly an equal distance towards the equator, the space of this unknown region has been materially diminished, and will ere long be explored. Dr. Schweinfurth found that a spur from those Blue Mountains of the Balegga which were seen by Sir Samuel Baker formed the water-parting between the Nile and a river which the Doctor has discovered called the Uelle or Welle; and that the streams which have been explored either by himself, or, previously, by Petherick, rise on the northern side of this spur, or water-parting, and unite to form the Bhar-al-Ghazel. This water-parting, he says, has a uniform slope to the north and west, broken only by granite masses which rise to a height of 3,000 feet above the sea-level. This range seems to sink gradually to the west, and has, the Doctor says, a very different character from the Nile valley to the north, or the valley of the river at the south which he discovered, the Uelle. This river he found to be 800 feet wide and twenty feet deep; along its valley was a luxuriant growth of vegetation, oil palms, sugar-cane, and tropical fruits, and he thinks that this river continues westward and northward to Lake Tschad. In the Mombuttu country he found in the vegetation and in the animals indications of the affinity of that region with the western coast; amongst which may be instanced the existence of the gorilla.

Like Livingstone, he found tribes that are cannibals, and to the south of the Mombuttu country there exists a dwarfish race, or pigmies, known by the name of the Acca, which Herr Bastian, the president of the Berlin Geographical Society, supposes to be the Baccabacca, a dwarfish race, in the east of Central Africa, mentioned by early writers. Dr. S. brought one of these pigmies back with him nearly as far as Khartoum, who died and was buried at Khartoum. The discovery of this dwarfish people is a confirmation of the pigmies mentioned by Homer, Aristotle, and Herodotus as living near the sources of the Nile. The Dokos, or pigmies of Dr. Krapf, are placed by him about the same parallel of latitude, but further to the east; whilst the Obongos, the curious little people described by Du Chaillu, dwelt in Ashango Land, on the western coast, near the equator.

The people of Niam Niam or Sandeh, that inhabit the region where these western sources of the White Nile rise, and where the River Uelle flows, are described by Dr. Schweinfurth as totally different from the Nile tribes. He found them gluttonous, skilful in pottery without the use of the wheel, in basket-making, carving, carpenter-work, and in the forging of their weapons. They exhibited, also, great taste for music, having a national instrument, which is a kind of cross between the harp and the guitar. Their burial-rites resemble those of the Arabs, and their language is a Nubian dialect, without grammatical inflections or any words to express abstract ideas. This very interesting and important journey embraced a period of three years and four months, and Dr. Schweinfurth has now gone upon another African expedition, the expense of which is to be borne by his brother, a merchant of Riga.

M. GRANDIDIER'S EXPLORATIONS IN MADAGASCAR.

M. Alfred Grandidier, a French naturalist, has been engaged for five years in exploring the island of Mada-

gascar. He says that hardly any of the accounts that have been published respecting Madagascar, no matter in what language they have been written, are reliable; and that the interior of this great island upon modern maps is filled with false rivers, mountains, and places altogether imaginary. My limits will not allow me to go into the details of this most interesting exploration. Between the years 1865 and 1870 M. Grandidier fixed the latitude of 188 different points, the longitude of twenty-four towns; made a very large number of observations, barometrical, thermometrical, and astronomical, and examined the coast-line for 1,250 miles, and when to this are added ethnological investigations, the taking of a large number of photographs, and his collections in natural history, some idea may be formed of the extent and value of the labors of this indefatigable explorer.

ANCIENT RUINS DISCOVERED BY KARL MAUCH.

Karl Mauch, the discoverer of the gold-fields in South-east Africa in 1871, and who made the perilous descent of the Vaal River alone, in a wretched flat-bottomed boat, for 350 miles, to its junction with the Orange River, has made an interesting discovery of a ruined city lying 160 miles due west from Sofala, a town on the east coast of Africa. These ruins, which are named Zimbabwe (in Portuguese Zimbaoe), and which he places in lat. $20^{\circ} 14'$, and lon. $31^{\circ} 48'$, consist of two different parts, separated from each other by a distance of 300 yards; the one part being upon a granite rock 400 feet high, and the other upon a terrace of lesser elevation. The heavy growth of vegetation and heaps of rubbish prevented him from examining them as fully as could have been wished. He found ruined walls, thirty feet high and varying from ten to fifteen feet in width, formed of stones of hewn granite, put together without mortar. In several places ornamental stone pillars projected eight or ten feet beyond the mason-work, and the

zigzag direction of the walls and labyrinthine passages connected with them seemed to indicate the ruins of a great fortress. He particularly examined a tower, thirty feet high, built also of blocks of granite, which was well preserved. It was cylindrical in form for the first ten feet from the base, the base being fifteen feet in diameter; and the rest of the tower was of a conical shape, being at the top eight feet in diameter. The presumption is that these ruins are of high antiquity. It is inferred, from their structure and general character, that they were not built by the Portuguese, the Arabs, or by any of the black tribes that inhabit the part of Africa in which the ruins were found. According to the account given by the inhabitants in the vicinity, they have occupied the country only for about forty years, and they say that when they came there the country was uninhabited. It was assumed, however, by all of them, that the region was once inhabited by a white race, which seems to be confirmed by traces of habitations, and by implements found, which never could have been made by the blacks. The country between the ruins and the east coast is of a most pestilential character, which will probably account for its remaining so long unknown. The country, however, where the ruins are situated is a fine one. It is a high plateau, 400 feet above the level of the sea, well watered, fertile, and thickly inhabited by a very industrious people, who are agriculturists and cattle-raisers. The existence of ruins of this nature so far inland from the coast is certainly very singular. It is conjectured that they were built by the Phœnicians; and Petermann, to whom Karl Mauch sent the account of his discovery, thinks, from their proximity to the newly discovered gold-fields, that the locality of these ruins is the Ophir so long sought for, to which Solomon sent for gold, ivory, and precious stones. The locality of the Ophir of the Bible, however, is a question that has been much discussed by archæological scholars and geographers, and there are many grave objections to be con-

sidered before entirely assenting to Dr. Petermann's conjecture. The intelligence has just been received that Karl Mauch has returned to Europe, I regret to learn, very much enfeebled by the African fever.

SUPPRESSION OF THE AFRICAN SLAVE-TRADE.

Whilst the slave-trade has entirely ceased on the west coast of Africa, it is maintained with great activity upon the east coast, and in the countries watered by the streams which flow from the west into the White Nile; the point of concentration or the emporium of the latter traffic being at Khartoum, on the White Nile. It has been for the suppression of the latter trade that, with the aid of the Viceroy of Egypt, the expedition of Sir Samuel Baker was undertaken, and that distinguished traveller was of the opinion, towards the end of 1870, that the traffic upon the White Nile had been entirely suppressed; but information from Khartoum, during the present year, is to the effect that this is far from being the case. Dr. Schweinfurth is of the opinion that the military expedition of Sir Samuel Baker into the countries of the Bhar-al-Ghazel, which, he says, has already cost £400,000, is, as he expresses it, "an awful mistake." He says that the best the Viceroy can do with these negro countries is to let them alone; that they are not productive, and that if they were, their distance from navigable streams is too great to admit of the exportation of anything less valuable than ivory. In his opinion, the slave-trade can be stopped in this direction only by cutting off its sources, and closing up its outlets; which he regards as a difficult and very expensive undertaking. Baker left Gondokoro in 1871, and nothing definite has since been heard from him. Fearing that he might be cut off by intervening hostile tribes, the Viceroy of Egypt has recently decided to send an expedition for his relief, the command of which is to be intrusted to Col. Purdy, an American officer. Sir Bartle Frere, at the head of an expedition for the suppression

of the slave-trade upon the east coast of Africa, has arrived at Zanzibar. From the capacity of this eminent man, supported as his expedition is by the governments that have coöperated to further its objects, there is reason to hope that he will be able to destroy the means that have hitherto sustained the slave trade upon the eastern coast, through the open support of it by the Sultan of Zanzibar, and the secret encouragement given to it by the Portuguese officials. The opening of the large region of Central Africa to civilization—a country the great value of which is now becoming apparent—depends more upon the suppression of this infamous and debasing traffic than upon anything else.

THE LIVINGSTONE EAST COAST EXPEDITION.

In connection with the expedition of Sir Bartle Frere is what is known as "The Livingstone East Coast Expedition," for the prosecution of which Sir Bartle Frere has received £1,500 from the Livingstone Fund. The command of this special expedition has been intrusted to Lieut. V. L. Cameron, R. N., who will be accompanied by Dr. Dillon. What is to be undertaken is to be settled at Zanzibar, and is, probably, now determined upon. Mr. Clements R. Markham, C. B., is of the opinion that the expedition will proceed to Lake Tanganyika, and from there attempt to communicate with Dr. Livingstone, who, it is thought, may be then upon the western shore examining the underground dwellings of Kabogo; that it will supply the Doctor with the watches and instruments he needs, and then undertake any work he may suggest. It is supposed that he will desire that these officers should examine the region of Lake Ukerewe, or Victoria Nyanza, and explore the country between the southern end of the Mwutan Nzigi, or Albert Nyanza, and Lake Tanganyika.

LIVINGSTONE'S CONGO EXPEDITION.

There is also a coöperating expedition upon the west coast, called "The Livingstone Congo Expedition," commanded by Lieut. W. J. Gandy, R. N., an officer who has had experience as an African explorer, both upon the western and the eastern coast. This expedition is fitted out by the Royal Geographical Society, a fund of £2,000 having been generously contributed for that purpose by Mr. J. Young, Livingstone's old and tried friend. This expedition has gone to Sierra Leone, where the Africans who are to accompany it are to be obtained, and from thence it will proceed to St. Paul de Loando, south of the mouth of the Congo. From this place the expedition will make its way by San Salvador to the banks of the Congo, and, ascending this great river, will attempt to reach its head-waters and source, which is supposed to be one of the great lakes recently discovered by Livingstone. Lieut. Gandy, before his departure, published an admirable paper on the Congo, in Mr. Markham's *Ocean Highways*, embodying all that is known respecting this important river, accompanied by a map giving an outline of the country from the west coast to the region of Livingstone's discoveries; upon which Lieut. Gandy has indicated his conjectures as to the upper tributaries and sources of this long-known and mysterious river. The Congo, under the name of the Zaire, has been represented upon maps since the days of Ortelius as one amongst the greatest of African rivers, as an immense stream running westwardly into the Atlantic, and deriving its waters from a great chain of lakes; and yet, with the exception of the exploration of it for 280 miles by Capt. Tuckey, in 1816, we know as little about it now as was known in the sixteenth century. This is, therefore, a most important expedition; and, if successful, there is every reason to believe that it will, in connection with the recent discoveries of Livingstone, clear up what is now the greatest of African problems.

CONCLUSION.

In conclusion, I may say, after this survey of the labors of the year, that the spectacle it presents is one of earnest and wide-spread activity in the prosecution of geographical inquiry. This is due in no inconsiderable degree to the formation in different countries, within the last forty years, of geographical societies that have gradually impressed upon the age the importance of exploring the unknown regions of the earth, and of obtaining more accurate and scientific knowledge of the parts that are known,—as a means alike of bringing about a more extended intercourse amongst mankind, and of enlarging our knowledge of those great physical laws, as yet but imperfectly understood, which affect the earth and everything existing upon it.* This activity is due

* There are now throughout the world, as far as I have been able to ascertain, thirty-one (31) geographical societies. I give their names and where situated. BELGIUM: Belgian Geographical Society, *Antwerp*. ENGLAND: Royal Geographical Society, *London*. FRANCE: Geographical Society, *Paris*; the Geographical Circle, *Lyons*. RUSSIA: Imperial Russian Geographical Society, *St. Petersburg*; Geographical Society, *Irkootak*; Society of Explorers of Western Siberia, *Omsk*; section of the Imperial Russian Geographical Society, *Orenburg*; Caucasian Geographical Society, *Tiflis*; section of the St. Petersburg Society, *Vilna*. GERMANY: Geographical Society, *Berlin*; Imperial Royal Geographical Society, *Vienna*; Geographical Association, *Dresden*; Geographical Society, *Munich*; Association of the Friends of Geography, *Leipsic*; Committee of the North-Polar Expedition, *Bremen*; Association for Geography and Kindred Sciences, *Darmstadt*; Association for Geography and Natural Sciences, *Kiel*; Geographical Institute, *Gotha*. HUNGARY: Association for the Exploration of Transylvania, *Hermannstadt*; Geographical Society, *Pesth*. HOLLAND: Royal Institute for the Philology, Geography, and Ethnography of Dutch India, *The Hague*. ITALY: Italian Geographical Society, *Florence*; Italian Geographical Circle, *Turin*. SPAIN: Royal Spanish Academy of Archaeology and Geography, *Madrid*. INDIA: Geographical Society, *Bombay*. UNITED STATES: American Geographical Society, *New York*. MEXICO: Mexican Geographical and Statistical Society, *Mexico*. SOUTH AMERICA: Imperial Geographical Society, *Rio Janeiro*; Historical Geographical and Ethnographical Institute of the Empire of Brazil, *Rio Janeiro*; Historical and Geographical Institute of the Rio de la Plata, *Buenos Ayres*.

also to the establishment during the last few years of periodicals devoted either exclusively or in part to the advancement of geographical science. I would especially refer to Dr. Petermann's *Mittheilungen*, and Mr. Markham's *Ocean Highways*, periodicals distinguished for the marked ability with which they are conducted, and the extent and value of the information they supply. I should also mention the monthly *Illustrated Travels*, edited by H. W. Bates, Esq., the Assistant Secretary of the Royal Geographical Society; the weekly publication of *Nature*, conducted by Mr. J. Norman Lockyer, the eminent astronomer, which as a general scientific journal furnishes much information upon geographical subjects; the *Annuaire Géographique*, published at Paris; and *Le Globe*, a geographical journal, published at Geneva.

The stimulus given by the geographical societies, and by these periodicals, is very essential; for no branch of knowledge has been so slow in its development, or has had so many obstacles to overcome, as geography. The world has had to unlearn a great deal believed in for centuries upon the tales of travellers, and the imaginary knowledge of cosmographers. It took a long period of time to convince men of what was opposed to the evidence of their senses,—that the earth, instead of being flat, was round; that, instead of being stationary, it was constantly in motion; and that, instead of the sun's moving around it, it moves around the sun. The spherical form of the earth, its diurnal motion upon its axis, and its annual revolution around the sun, were known to Eudoxus 300 B. C.; and 450 years afterwards, in the second century of our era, Ptolemy, in his principal work, brought together a body of reasons, many of which are incomprehensible to us, upon which he came to the conclusion that the alleged diurnal and annual movement of the earth were untrue, and the world accepted his decision for 1,300 years. Within twenty years after Galileo

demonstrated the diurnal motion of the earth, Bernard Varen, or, as he is called, Varenius, the physician of Amsterdam, published the celebrated work which revolutionized the science of geography, and laid the foundation of a separate science, that of physical geography; and yet it is only within the last half century that physical geography has assumed the character of a distinct branch of inquiry. Even at the present period the progress of geography is slow, for if we use the term "knowledge" as expressing what the science of geography demands, the world is not more than half known; and though there are not now, as in the days of Prince Henry the Navigator and of Columbus, great continents or vast islands to discover, let it not be forgotten that a considerable portion of the earth is yet unexplored; that a very large part is known but imperfectly, and that physical geography presents an immense field for the future labors of mankind.

II.

ANNUAL ADDRESS.

BY DANIEL C. GILMAN,

*Late Professor of Physical Geography in the Sheffield Scientific School of Yale College,
now President of the University of California, at Oakland.*

SUBJECT—GEOGRAPHICAL WORK IN THE UNITED STATES DURING 1871.

DELIVERED JANUARY 30TH, 1872.

MR. PRESIDENT AND GENTLEMEN,—At the last annual meeting of the American Geographical Society, your attention was invited to a review of the last decade of geographical researches within the territory of the United States. This evening, in compliance with your invitation, I bring before you an account of the geographical work of our countrymen during the past twelve months. At first it seems to be a familiar and an easy task, but before I have concluded you will surely be impressed with the variety, the magnitude, and the success of the various enterprises which have been in progress under the auspices of American explorers, geographers, and men of science; I trust you will also appreciate the difficulty which there is in collecting and discussing the results of such investigations. It is only by occasional reviews like this that we can appreciate the great importance of maintaining, with vigor and liberality, in the national metropolis, an association, with its officers, its rooms, its collections, its bureau of charts, its library, and, above all, its publications, as the centre to which all important

the work of the Northern Pacific Railroad Company, which, while actually constructing the railroad line, at both the eastern and the western extremity, is also carrying forward important surveys upon the lofty regions of the North-west. Similar work, of which I have less definite knowledge, is in progress in the South-west.

5. Our various journals abound in minor essays illustrative of American geography, among which should be especially noted the studies of Prof. James D. Dana in respect to the glaciers of New England; the elaborate inquiry of Prof. Hilgard in respect to the formation of the Gulf of Mexico and the Mississippi Delta; the essays upon Earthquakes and Volcanoes, published in the *North American Review*, by Prof. J. D. Whitney; Clarence King's lively sketches of mountaineering in the Sierra Nevada, which appeared in the *Atlantic*; the contributions of Rev. James Condon, and others, to the *Overland Monthly*; the Border Sketches of Gen. Marcy, which belong to the lively pictures of frontier-life; the various studies of the earthquakes of 1870, and the historical survey, by W. T. Brigham, of the earthquakes known to have occurred in New England from 1638 to 1869.

6. Our countrymen have also been more or less at work in foreign lands. A new survey of the Isthmus of Darien has been made by Capt. Selfridge. The head of an important department of the Government, Mr. Capron, has been called by the Government of Japan to investigate the resources and capacity of that empire; Dr. B. A. Gould has successfully established the observatory at Cordova; Prof. W. D. Alexander has begun a survey of the Sandwich Islands, upon the method of the United States Coast Survey; Mr. Squier has been publishing his observations in Peru; Prof. Hartt has returned from a new visit to the Valley of the Amazon; Mr. Gabb has been led, by the action of our government, to print a summary of the observations he has for several years been prosecuting in San Domingo; Dr. Habel has returned

from a seven years' residence in Central and South America, to work up, on the banks of the Hudson, his observations; a party of students from Williams College have been at work under the charge of H. M. Myers, in researches in Spanish Honduras, and a committee of American gentlemen, all of whom have travelled in the Holy Land, has been organized to coöperate with the Palestine Exploration Committee of England in the survey of Biblical lands. This review would not be complete without an allusion to the party of American astronomers who visited the South of Europe, to observe the solar eclipse of December 22d, 1870, and who have been publishing their researches.

Such are the topics which suggest themselves in a rapid survey of the progress of geography, by the labors of Americans, during the year 1871. It is obvious that we can dwell upon only a very few of the undertakings of which I have given you a list. The selection I make is based upon the general interest which may be felt upon the subject; for often the most patient and elaborate work is ill fitted to be brought forward for discussion in a popular address.

II. THE WORK OF THE CORPS OF ENGINEERS, U. S. A.

Under the engineers of the army, of whom Maj.-Gen. A. A. Humphreys is chief, a vast amount of skilful labor is performed, pertaining to the improvement of our harbors and rivers, as well as to the construction and repair of fortifications on the sea-coast and upon the frontier. But, besides these services, several works have been lately in progress, which are of national interest and of geographical significance, directed by this accomplished corps. I refer especially to the survey of the great interior lakes, which has been for many years in successful progress, the survey of the fortieth parallel, the survey of Arizona and Eastern Nevada, and the noteworthy reconnoissance of the Yukon River, in Alaska. For all these matters

of general interest, besides a vast amount of important details in respect to the astronomical, geodetic, meteorological and engineering work of the corps, reference should be made to the report of Maj.-Gen. Humphreys, one of the most comprehensive and satisfactory of all the reports which are annually prepared for Congress.

1. The prosecution of the survey of the great lakes is entrusted to Gen. C. B. Comstock, of the Corps of Engineers, under whose direction in the past year the work was carried forward on Lake Superior, Lake Michigan, Lake St. Clair, Lake Champlain, and on the St. Lawrence River. Among the interesting points in his report may be mentioned the determination by telegraph of the longitude of Detroit, Duluth, and St. Paul; the careful measurement of a base-line, not far from three miles in length, on Minnesota Point, near Duluth; the introduction of plane-table work on the shore of Lake Michigan; the institution of an inquiry into the tides and *seiches* of the lakes (the latter of which, it is suggested, may be due to tornadoes); the prosecution of deep-sea soundings in Lake Superior, with an investigation of the organic life at low depths, by Prof. S. I. Smith; and the diligent elaboration of the ordinary details of the survey by triangulation, topography, hydrography, and the publication of maps. A commencement has been made of a survey of the River St. Lawrence, from the northern boundary of New York to the east end of Lake Ontario; and the southern end of Lake Champlain for thirteen miles has been surveyed.

2. The survey of the fortieth parallel, which is also under the guidance of the Chief Engineer of the Army, has been vigorously prosecuted during the past year, not only by observations in the field, but also by the publication of two of the elaborate reports. Mr. Clarence King, the well-known leader of the expedition, with the title of United States Geologist, has published, in the *American Journal of Science*, an account of the glaciers of the

Pacific coast within the territory of the United States, and he has contributed to the *Atlantic Monthly* a series of vivacious articles illustrative of his experience in "high mountaineering." As the scientific results of this expedition begin to appear, and attract attention at home and abroad, it may be well to recapitulate the outlines of this great survey.

The survey was organized under Mr. King's direction, in the spring of 1867, for the purpose of making a geological and topographical examination of the country bordering upon the Union and Central Pacific railroads, as far to the north and south of the fortieth parallel as practicable. In the first season the survey was carried from the western boundary of California as far east as the second Humboldt range. A detailed examination was also made of the Washoe silver region. The next summer (1868) the survey was carried on in three divisions as far as the western limit of the Great Salt Lake Desert. The Toyabe silver-bearing mountain-range, the White Pine silver district, and some of the metalliferous deposits of Colorado, were also examined. In 1869 the survey was carried eastward as far as the Green River divide, the belt measuring, as before, 100 miles from North to South. A short campaign, in the autumn of 1870, was devoted to a study of the sources of the lava-flows which have poured eastward from the axial line of the Sierra Nevada and the Cascade ranges into the Great Basin. During the summer of 1871 the field work was still in progress, one party having entered the Uintah Mountains from Fort Bridger, working eastward toward the Green River cañon, and the other going from Fort Sanders into the North Park and the Elk Head Mountains. Both parties found the wide-spread smoke a great obstacle to topographical work. The character of the work performed has been, first, topographical, a system of triangulations having been carried from summit to summit over the whole country traversed.

Minor triangles have been measured, the elevations approximately determined upon a system of 300 foot grade-curves located by the barometer, and the altitude of all prominent mountain-peaks and localities upon the plains has also been determined. Careful and actual geological sections have been made over the whole area; the climatic conditions of the Great Basin have been studied; the botany and geology of the region traversed received special attention, and the mining industry has been elaborately investigated.

The two portions of the work which have been published within the year lie before you; one is the report on the mining industry, a volume of text with an atlas; the second is the report of the botany, the illustrations of which are inserted with the text.

It would lead me beyond the limit of this discourse were I to give a particular account of the two reports; but they are too interesting to the geographer to be passed by with mere mention.

The first chapter of the volume on mining districts relates to their geographical distribution and geological mode of occurrence. After a brief description of the Great Basin, and a reference to the one prominent law of arrangement of the Cordilleras, that they wend from north or north-west to south and south-east, Mr. King affirms that all the structural features of local geology are in strict subordination to this longitudinal direction of ranges. So, likewise, the localities of the precious metals, as originally noticed by Prof. W. P. Blake, appear to arrange themselves in parallel longitudinal zones. After this introduction there are geological descriptions of the most famous of the mining districts of Nevada, an investigation of the Green River coal-basin, and an inquiry into the mines of Colorado, by Mr. J. D. Hague, especially the gold district of Gilpin county and the silver district of Clear Creek county.

A novelty in subterranean geography or cartography

is presented in the atlas which accompanies this volume, in which many miles of hidden roads and passages are carefully delineated.

The Botany has been prepared by Mr. Sereno Watson, the chief collector, with the coöperation of Prof. D. C. Eaton, in whose herbarium and library the description of the plants was perfected. Somewhat more than 100 species new to science are described, and much light is thrown upon the distribution of timber and on the families of the desert-flora. The work is prefaced by a clear and compact account of the region traversed, with an excellent outline map, and with a very striking general description of the vegetation of the country,—the mountainous and desert region of Northern Nevada and Utah,—the northern portion of what used to be called “The Great Basin.” The vegetation, like the country, should be considered in its two chief aspects,—that of the mountain, and that of the valley. No portion of this whole district, however desert in repute and in fact, is destitute of some amount of vegetation, even in the driest seasons, except only the limited alkali flats. But the vegetation is monotonous in aspect by want of trees and grassy greensward, by the wide distribution of a few low shrubs, and by the universally prevalent gray or dull olive color of the herbage. “The everlasting sage-brush” (*Artemisia tridentata*), familiar to all travellers, is everywhere present. To the general absence of trees the Truckee Valley presents an exception, where two varieties of poplar grow freely in the river-bottom. So on the mountains, which are usually treeless as the valleys, a few scattered varieties of trees are found, mostly within the cañons, and probably never exceeding forty or fifty feet in height. The mountain-flora includes a larger number of shrubby species than that of the valleys, though many of them are very sparingly distributed. The number of Alpine and sub-Alpine plants are proportionally large. The total number of indigenous, phænogamous species enumerated

in the report is 1,235, representing 439 genera, and eighty-four orders,—about one-third of which belong to the mountain flora, one-fourth to the desert flora, and the remainder to the “alkaline” and “aquatic” groups. The essay, from which these particulars are gathered, is a very interesting exhibition of the geographical distribution of the plants of the region.

The agricultural resources of the basin are quite restricted. Even were the rivers and streams most economically distributed, it is estimated that of 34,000 square miles examined in Northern Nevada, not over 1,000 square miles could ever be brought under cultivation. Some investigations were made as to the possibility of cultivating certain forms of vegetation without irrigation, but on a scale too limited to be conclusive.

3. Besides the exploration of the fortieth parallel, there is another important survey in progress, under the direction of Lieut. Geo. M. Wheeler, of the corps of engineers, covering a district considerably to the south of the Central Pacific Railroad, and including sections of South-western Nevada, South and Eastern California, South-western Utah, Northern, North-eastern, and Eastern Arizona. The party, who numbered some eighty-five persons, took the field in May, 1871, and continued at work till December, when they returned to winter quarters. Their purpose has been to attain a thorough topographical knowledge of the country, to determine the latitude and longitude of important points, to observe the geology and vegetation, to inquire into the numbers and condition of the Indians, and the facilities for road-construction, etc. Those who are familiar with these regions will observe that this work is a continuation of that which was carried forward in 1869 by the same officer of the engineers.

From unofficial statements we learn that the success of this great undertaking has been all that could be desired. The months of September and October were devoted to

the Colorado cañon, which was penetrated to a distance of 225 miles above Camp Mohave. The topographical data, the zoölogical specimens, the photographs and drawings, the facts illustrative of the ancient civilization, and the mining information, are said to be full and important.

But one grievous occurrence has saddened this brilliant record. The chief topographer of the party, Mr. P. W. Humel, and that accomplished young writer, Mr. Loring, of Boston, were cruelly murdered by the Apache Indians, on the Wickenburg stage, as they were homeward-bound with the results of their observations, after having encountered, without molestation from the Indians, all the perils and hardships of the exploring party. The notes of the chief topographer have been recovered in a condition for use; those of the volunteer observer, from which an entertaining book might have been expected, can hardly be made use of.

4. Within the last twelve months we have also had from the engineer corps an important contribution to our knowledge of Alaska. The reconnoissance of Capt. C. W. Raymond upon the Yukon River, which was commenced in the spring of 1869, was completed in the summer; and the report, with a map, which hangs before you, was submitted to Congress in April last.

The chief point to which Capt. Raymond's attention was directed was the determination of the latitude and longitude of Fort Yukon. Incidentally, the trade of the region was to be examined, and the condition of the native tribes investigated. He was also directed to ascertain as much as possible in respect to the resources of the Yukon and its tributaries.

The delicate and responsible duty intrusted to Capt. Raymond (which was performed in a highly creditable manner, according to the published endorsement of the chief of his corps Gen. Humphreys), will quickly be comprehended from a single statement. Fort Yukon, the

most northern point of the river of that name, for several years past has been the extreme western trading-station of the Hudson Bay Company. It was supposed to be west of the boundary between Russian and British America ; and, if so, its establishment was contrary to the terms of a treaty between Great Britain and Russia. The Russians, however, had been quite indifferent in the matter ; but not so the Americans, who, after the acquisition of Alaska, began to push up the Yukon River for purposes of trade. This made it very important to determine the exact locality of the fort, and Capt. Raymond volunteered to undertake the difficult and hazardous duty. Launching a little steamer near the mouth of the river, he set out, on the 4th of July, 1869, to make the ascent ; reached Fort Yukon, a distance of over 1,000 miles, traversed wholly by the steamer, on the 31st of the month ; determined the latitude to be $66^{\circ} 33' 47''$, and the longitude $145^{\circ} 17' 47''$; set at rest the question at issue ; informed the traders that they were in American territory ; and, on the 9th of August, took possession of the buildings, and raised the flag of the United States over the fort.

The map which hangs before you embodies, in a cartographical form, the result of this reconnoissance. The maps of a previous date have been based on that of the Russian lieutenant, Zagoskin, which was made in 1842-3, with the corrections and additions of Dall, Whimper, Smith, and other explorers of the telegraph company. The journey of Messrs. Ketchum and Labarge, of the telegraph company, in 1866, first established the fact that the Kvichpak River of the Russians, and the Yukon of the English, were the same streams. These travellers, to whom Capt. Raymond expresses his thanks, have not published their narrative.

The report of Capt. Raymond, extending through 110 octavo pages, is very clear and comprehensive, and throws much light upon our new acquisitions. This reconnoissance, with the work of Mr. Davison, of the Coast Survey,

on the coast, and the volumes of Messrs. Dall and Whymper, are the geographical fruit of the Alaska purchase.

III. THE SURVEY OF CALIFORNIA.

Since the publication of the *Natural History of New York*, and the *Geology of Pennsylvania*, there has been no survey of one of the United States at all comparable in fulness and in importance with the survey of California, now in progress, under the direction of Prof. Josiah D. Whitney. Everybody talks about the wonderful natural resources of the Golden State; but few people, even within its borders, have any adequate conception of the admirable inquiries into, or presentation, of these resources which have been made by the State Geologist and his associates. We presume that the word "geology," while it has had a charm for some persons, has to others conveyed too restricted a meaning. The people of the State cannot have appreciated that under this designation they were securing elaborate and accurate maps of the entire State, and (on an enlarged scale) of certain important localities; a comprehensive study of the physical structure of the country, as a basis for investigations into the climate, agriculture, facilities of communication, and sanitary conditions of a new and undeveloped region; an original investigation of the geology, both in its general and its economic aspects, and a full study of the animals and plants which are native to the region. The size of the State, its wonderful capabilities, its variety of attractions, its marvellous growth, its prospective wealth and influence, are circumstances which render it very desirable that the original survey of the State should be on a good plan, by good methods, and by competent observers. All these conditions have been secured. Only one other element was necessary,—liberal financial support. In this the State has wavered, but now gives signs of a determination to see the work completed as it should be.

However costly the outlay, we are sure it will never be regretted. The strictest principles of economy require that such a work should be vigorously prosecuted and thoroughly performed.

The results of the survey, thus far, are as follows:

(a) The publication of a map of the Bay of San Francisco, and its vicinity, on a scale of two miles to an inch, of which a copy was shown to the Society last year. Two other maps are also in the engraver's hands. (b) The first is on a scale of six miles to an inch, embracing about 60,000 square miles in the central and most thickly settled part of the State. Of the four sheets which this map will cover, the two southern are almost ready for publication, and the two northern will be ready in about two years. (c) A general map of the State, on a scale of eighteen miles to an inch, to be issued both as a topographical and as a geological map, will also be ready before spring. Only one corner of the central map remains to be surveyed topographically. (d) Four volumes of illustrated text have also been printed, besides the Yosemite Guide, and various brochures. One of the volumes is a preliminary report on the structure of the State, two are devoted to paleontology, and one to ornithology. The last has been published within the year, and is devoted to the birds, not only of California, but of the North-American continent north of Mexico, and west of the Rocky Mountains. The second volume of the birds is nearly ready. Prof. Baird and Dr. Brewer are its editors. Prof. Baird and Dr. Cooper have prepared the first. During the last year Prof. W. H. Brewer has been engaged in the herbarium of Dr. Gray, in Cambridge, upon the description of the plants of the Pacific slope, collected by him as the botanist of the survey. A volume of conchology is also nearly ready. The geology proper is also to be pushed forward with vigor. Men of science everywhere hail with satisfaction the progress of this publication as honorable,

not only to California, but to American science, and which is published with a degree of typographical and cartographical accuracy and beauty which is worthy of the geological work. Those who would learn more of the nature of the survey may turn with advantage to a fresh and trustworthy article in the *Overland Monthly* for January, 1872.

IV. THE NORTHERN PACIFIC RAILROAD.

The attention of the public is often directed to the financial attractions of the Northern Pacific Railroad, and to the immense advantages which will accrue to the country from the completion of a second railroad line to the Pacific, shorter, lower, and easier than the central route. The central route has already modified the commerce of the world by making this country a common highway from Western Europe to Eastern Asia; and every additional facility for transcontinental communication which is secured increases our national commerce and power. It is not long since I heard one of the high officers of the government, officially informed upon the matter, declare that the solution of our Indian troubles in the North-west depended upon the rapid prosecution and completion of the second Pacific Railroad; for, however jealous the North-western tribes may be of the approach of a party of engineers, they cannot resist the influences of power and civilization which the locomotive brings with it.

But, while some of these general aspects of the Pacific railroads are familiar to us, we are in danger of failing to notice how great a contribution is quietly making to our knowledge of Western geography by the parties of engineers who are persistently carrying the level, the transit, and the barometer into obscure and almost inaccessible parts of the national territory. These surveys have been extended from the Pacific to the Mississippi, on the line of the Northern Pacific Railroad, there being

at the present time, as I am informed, but a short space of seventy miles which remains undetermined by the level.

Gen. W. Milnor Roberts, the chief engineer of this road, has recently returned to New York, and with reference to this lecture has been so kind as to give me much information in respect to the surveys of which he has been both superintendent and participant. He mentioned incidentally the great service which the telegraph had rendered in the conduct of parties in the field, so widely separated. By its aid he has been able personally to direct the work which has been in simultaneous progress upon both the eastern and the western slope of the Cordilleras, sending his orders and receiving information freely by the telegraph.

The work of his parties last summer is of the greatest interest, from the fact that a large part of it was concentrated upon the question as to the most favorable route for crossing the Rocky Mountains in Western Montana, with the subordinate consideration of the Yellowstone Valley on the east as a mode of approach to the summit, and on the west of the relation of the railroad route to the lofty Bitter Root Mountains, which have hitherto been quite inadequately explored.

Those who are familiar with the history of Rocky Mountain explorations are well aware that the earliest crossing of the Divide took place in the region which was so carefully examined last summer. Here it was that, in 1805, Lewis and Clark, those intrepid pioneers, attained the highest waters of the Missouri, crossed over the water-shed, and descended, first of white men, into the tributaries of the Columbia. We may well, in this connection, refresh our memory by turning to their narrative.

Since the days of Lewis and Clark our maps have borne the names which they attached to the mountain-streams—Jefferson, Madison, Gallatin, and Dearborn, the president and secretaries of the National Government in the

time of these explorations ; and the map which they gave us (poor as it now appears) remained for half a century our most complete, I may almost say our only original portrayal of the region. Then came, in 1853, the Pacific Railroad surveys of the General Government, conducted in this part of the country by Gov. I. I. Stevens. A little later, one of his chief collaborators, Capt. Mullan, U. S. A., was detailed to construct a military road from Fort Walla-Walla, on the Columbia, to Fort Benton, on the Missouri,—a work which occupied him from 1858 to 1862,—and now the actual construction of a railroad has already been begun. The task of Capt. Mullan occupied him four years, when a wagon-road of 624 miles was completed across the Rocky Mountains.

The summer of 1871 has thrown a vast amount of light upon the Montana passes ; four parties, besides that of the engineer-in-chief, Gen. W. M. Roberts, having been engaged in investigating this group of mountain-entrances. To understand their work, two points of departure must be kept in mind,—the town of Helena, Montana, or, better yet, a point a little south of it, where those two well-known streams the Gallatin and Jefferson come together. The second point of departure is the junction of the Deer Lodge and Little Black Foot rivers, on the western slope of the Rocky Mountains. We may term these departures One and Two.

One of the parties of the Northern Pacific Railroad last summer went up from Departure One, along the easternmost of the three Missouri affluents,—the Gallatin, over the Bozeman Divide, and so into the Yellowstone ; a second from the same departure went up the western affluent, the Jefferson, over the Deer Lodge Pass, and so down to the Departure Two ; a third party, starting from Departure Two, proceeded down the Hell Gate and Missouri Rivers, into the Bitter Root Mountains, and so to the Jocko river ; a fourth party examined the Lower Dearborn valley to its union with the Missouri,

and then westward up the Dearborn valley, examining the passes known as Cadotte's, and Lewis and Clark's, and going over the mountains to Departure Two.

Gen. Roberts made a personal examination of eight passes between Cadotte's, on the north, and Deer Lodge, which is about eighty-five miles south in an air-line; and his observations led him to order an instrumental survey of the most promising pass, "Ten-Mile Pass," from the initial point on the Deer Lodge, over the pass, and so down to the Missouri, a few miles north of Helena.

Meanwhile other parties were at work between Montana and the Pacific, farther west; one going up the Clear water toward the summit of the Bitter Root range, and afterward, going down the Snake River from Lewiston; a second party surveyed from the summit of the Cascade down the Yakima to the Columbia; a third party were at work on the "Forty Miles," beyond the Cowlitz residency, and a fourth was engaged to make a reconnoissance from the Columbia River, near Lake Chelan, towards the Pend d'Oreille country.

Besides all this work, the engineer-in-chief made an instrumental reconnoissance of the Yellowstone valley.

The results of such a number of investigations are obviously important. They involve several points of interest. First, the best approach from the east to the Rocky Mountains, is it the Missouri or the Yellowstone? Second, in either case, what is the best way over the Rocky Mountains? or, in other words, which one of eight passes, in a region of nearly 100 miles long, is to be preferred? Third, what is the best way down the Pacific slope to the valley of the Columbia,—is it the Mullan wagon-road or some other way? Fourth, the best route down the Columbia valley, and, finally, the structure of the Cascade Mountains? On all these points the company has secured, by the work of last summer, detailed information (for which in due time the world will be wiser); but it is not quite ready to publish it.

Gen. Roberts comments on the productiveness of Montana like most other persons who have been there. He says that the soil in the valleys and on the slopes of the foot-hills excels in productiveness any region where he has dwelt, excepting Oregon and Washington.

He anticipates that the road will be open to the Missouri in the fall of 1872; that it may be extended to the Yellowstone in 1873. During 1875 the line could be graded, and the track laid over the Rocky Mountains to meet there the line from the Pacific, if that end of the track should be completed with equal despatch.

One of the subordinate surveys carried on, under the auspices of this great corporation, during the past year, was conducted by Gen. T. L. Rosser, from the Missouri River, at Fort Rice, to the Yellowstone, by the way of Heart River and Glendive's Creek, a distance of 226 miles. As it happened that I was at Fort Wadsworth, D. T., on that lofty plateau which is called the Coteau of the Prairie, when a part of the escort for Gen. Rosser's party went forth last summer, and thus heard from the leader of the expedition an account of the problems to be settled and the difficulties to be encountered, I have looked with much interest for the publication of the results of their summer's work, and have been favored with an early copy of it. Much apprehension was felt lest the Indians, who watch with jealousy what we call the advance of civilization, should attack the survey, and so a strong escort was fitted out under the command of Gen. Whistler. No trouble was given by the Indians, except the burning of the grass, which would have been useful as forage.

The party reached the mouth of Heart River September 11th, and proceeded at once to survey it. They soon reached the Heart Butte, the deserted seat of Black Feet's empire, and, a few miles west, came upon a field of coal which was thence continuous to the Yellowstone. In several places the coal was burning, and appeared to have been

doing so for years. At the top of the ridge which divides the waters of the Heart and the Little Missouri, the Mauvaises Terres were first seen, and appeared to be an insurmountable obstacle ; but soon a water-course descending into the valley was discovered. The stream running through this valley he named Dave's Creek ; its waters are strongly alkaline, the timber chiefly cotton-wood, and "very scattering." From Dave's Creek the party went over into the valley of the Little Missouri, a tortuous cañon, the walls of which are some five or six hundred feet high. The bluffs in many places show advantageously the peculiar geology of the Mauvaises Terres. Running down this stream five miles, he reached Andrew's Creek, and ascended it to the prairie level, from which he descended again to Inman's Fork, one of the tributaries of the Little Missouri. Beyond this fork is the divide between the Little Missouri and the Yellowstone. Glendive's Creek led the party down to the valley of the Yellowstone ; the stream being here 1,000 feet wide, the valley about two miles. A map and profile of the regions were prepared by the topographers, Messrs. Meigs and Eastman.

It is greatly to be desired that the gentlemen who are in charge of this national undertaking will find an opportunity to give to the public the scientific results of their recent surveys, and especially that the measurement of altitudes and distances in regions where a road is not finally located will be preserved and published for the benefit of future inquirers.

V. THE YELLOWSTONE GEYSER REGION.

No portion of our national domain has of late been regarded with so much curiosity and surprise as the region of geyser and hot springs, which has been brought to light near the sources of the Yellowstone and Fire Hole rivers, just east of the divide between the Missouri and the Columbia. So remarkable are the narratives of the visitors to these regions that a bill is now pending in

Congress to reserve from settlement, under the name of a national park, the tract in which the most surprising of the phenomena appear. It is satisfactory to know that the bill will probably become a law.

On the latest-published maps of the Engineer Department, the courses of the Upper Yellowstone and the Fire Hole rivers are faintly delineated ; but on the map of Mr. De Lacy, Surveyor-General of Montana, the local nomenclature and the approximate courses of the rivers are more fully brought out ; and on the two maps which, by the courtesy of the engraver, Mr. Julius Bien, of New York, I am able to bring before you, the exact position of the principal geyser and hot springs is indicated. These two maps were drawn by Mr. E. Hergesheimer, of the United States Coast Survey, at the instance of Dr. F. V. Hayden, to illustrate his report upon the region. The substance of this report, with reduced copies of the map, will be found in the *American Journal of Science* for February and March, 1872.

In connection with this report of Dr. Hayden's, reference should be made to the early story of the Washburne-Langford party, which was printed in *Scribner's Monthly* for 1871, and which gives a very graphic account of the region ; to a narrative by Walter Trumbull, in the *Overland Monthly* ; and to the report which has been published in full by various newspapers, within the last few days, of the expedition of Capt. Barlow, of the United States Engineers, which visited this region in the summer of 1871. The survey of Gen. W. Milnor Roberts, already referred to, began at a lower point upon the river, east of Bozeman's Pass, and continued towards the Missouri, and Gen. Rosser touched the river at a much lower point.

VI. THE NINTH CENSUS OF THE UNITED STATES—1870.

During the past twelve months the publication of the results of the ninth census of the United States has been commenced, and we have before us now the advance

sheets of the Statistics of Population by States and Territories, both in the aggregate, and as white, free-colored, slaves, Chinese and Indian, at each census. We have also the Report of the Superintendent of the Census, Gen. F. A. Walker, on the conduct and results of the work entrusted to his charge. Although the law of Congress under which this decennial enumeration was taken is far behind the requirements of modern statistical science, its execution was entrusted to an excellent officer, and the results may be received with great satisfaction and confidence.

But as this Society no longer recognises the statistical side of geographical inquiry, I do not feel at liberty to dwell at length upon this topic, and indeed I should hardly have introduced it at this time were it not for the sake of presenting to you some of the results of the census in a very clear and instructive cartographical aspect. It is fair to presume that you are still interested in the geographical side of statistical inquiry.

The manuscript maps which I now hold before you were prepared under Gen. Walker's direction in the census office, as examples of the mode by which the results of the census may be exhibited on maps. These very maps are soon to be presented to the appropriate committee in Congress, in the hope that their publication will be commended, and that other kindred maps will be prepared and given to the public under the supervision of the Census Bureau.

These maps are seven in number.* I hold up first a map of Alabama, which shows at a glance in what part of that State the Africans preponderate, a series of tints being employed, as you observe, which are darker in proportion as the number of Africans increases. Now, it would take a long time to discover from a column of

* This portion of the Address was given *ex tempore* as the speaker turned to the maps, and was reported with difficulty.

figures the fact which you here see at a glance; that through the middle of the State, from East to West, there is a black belt where the colored people are most numerous. No alphabetic list of counties would suggest that fact, or enable us to surmise the reason. It would perhaps have been better if the structure of the country had been more fully delineated, for here we have only the water-courses. An exhibition of the altitudes of the State would have been a desirable feature.

Here is a similar map for the entire Southern sea-board, which exhibits the distribution of the Africans, not county-wise but State-wise. You see here at a glance that the blacks preponderate in South Carolina. Louisiana stands next. Then comes Virginia, North Carolina, Texas, Arkansas, Tennessee, Maryland, Kentucky, and so on. Underneath this map hangs a map of the same series of States, exhibiting the same class of facts ten years previous, when the census of 1860 was taken, and these two maps, if compared, will show the effect of emancipation upon residence. Here you see South Carolina, in the present census, is the darkest. So it was in 1860. Georgia and Alabama stood second ten years ago. They stand third now. Louisiana stands second, and Mississippi has entered the same grade as South Carolina, when, ten years ago, it stood below. Texas, which was ten years ago fourth in rank, is now the fifth.

Here is another map which exhibits the distribution of foreigners at the South; on it we see that the foreign born population is thickest, where the Africans are not, and *vice versa*. South Carolina, which was darkest before, is lightest now. Missouri, where the Germans have so largely gone, stands foremost. West Virginia and Kentucky are alike. Texas corresponds with Delaware. In the South-east is a region where very few foreigners have gone; more to Florida than Georgia, more to South Carolina than to North Carolina. Here we have the Northern States, a map of the former free States,

showing the proportion of foreign to total population. You observe how the line of emigration has been through the North ; and it is very curious that of people coming in from Europe, the densest population is found farthest from the sea-coast. They are pressing into Minnesota, the State which has the largest proportion of foreign born people. Wisconsin stands second. New York third, corresponding with Nebraska, and with Massachusetts ; Connecticut is fifth ; then comes Illinois and New Jersey, and Iowa ; and Maine is eighth, corresponding with New Hampshire and Indiana. Here we have another map, exhibiting the proportion of blacks in the Northern States. You see that a State where they cling most decidedly is Kansas. New Jersey next. Ohio next. The Southern tier, you see, has their company more than any other. The last in rank is Minnesota, where we saw before that the foreigners most abounded.

This map (showing another), although you can hardly see it across the room, is to me the most interesting of all ; first, because it is a map of the whole country ; and second, because it is prepared with special study and care.

It is intended to show us in what parts of every State the German element is most abundant, and then by making a deduction for this preponderance in certain regions, to show what is the average distribution in the remainder of the State. Notice, for example, in Missouri the preponderance of Germans in the St. Louis region, and their comparative scarcity in South-western Missouri. See in New Jersey the marked ascendancy of this element in Hoboken and Jersey City, and their vicinity, while in the State, as a whole, the German element by no means preponderates.

But I will not dwell longer upon these instructive diagrams, for they were not designed to be shown to so large an assembly. The interest, however, which you manifest in them, leads me to express the hope that the Society, as individuals and as a body, will exert what influ-

ence they can rightly bring to bear upon Congress, to secure the publication of some such diagrams as those which you have before you.

As an example of what may be done in this graphic mode of representation, let me call your attention to a beautiful series of printed maps, which the Prussian government has recently printed. I refer to the atlas entitled *Der Boden und die landwirtschaftlichen Verhältnisse des Preussischen Staates, nach dem Gebietsumfange vor 1866, von A. Meitzer*,—a work in which, with great clearness, accuracy, and beauty, the territorial divisions, the geographical and geological structure of the country, the density of the population, the wealth, taxation, distribution of industries, etc., etc., are cartographically presented.

VII. PROPOSED AMERICAN EXPLORATIONS IN THE EAST.

It is a little beyond the scope of this discourse to speak of work projected by our countrymen, especially in other lands, but the great importance of the plans to which I am about to refer will certainly justify the reference.

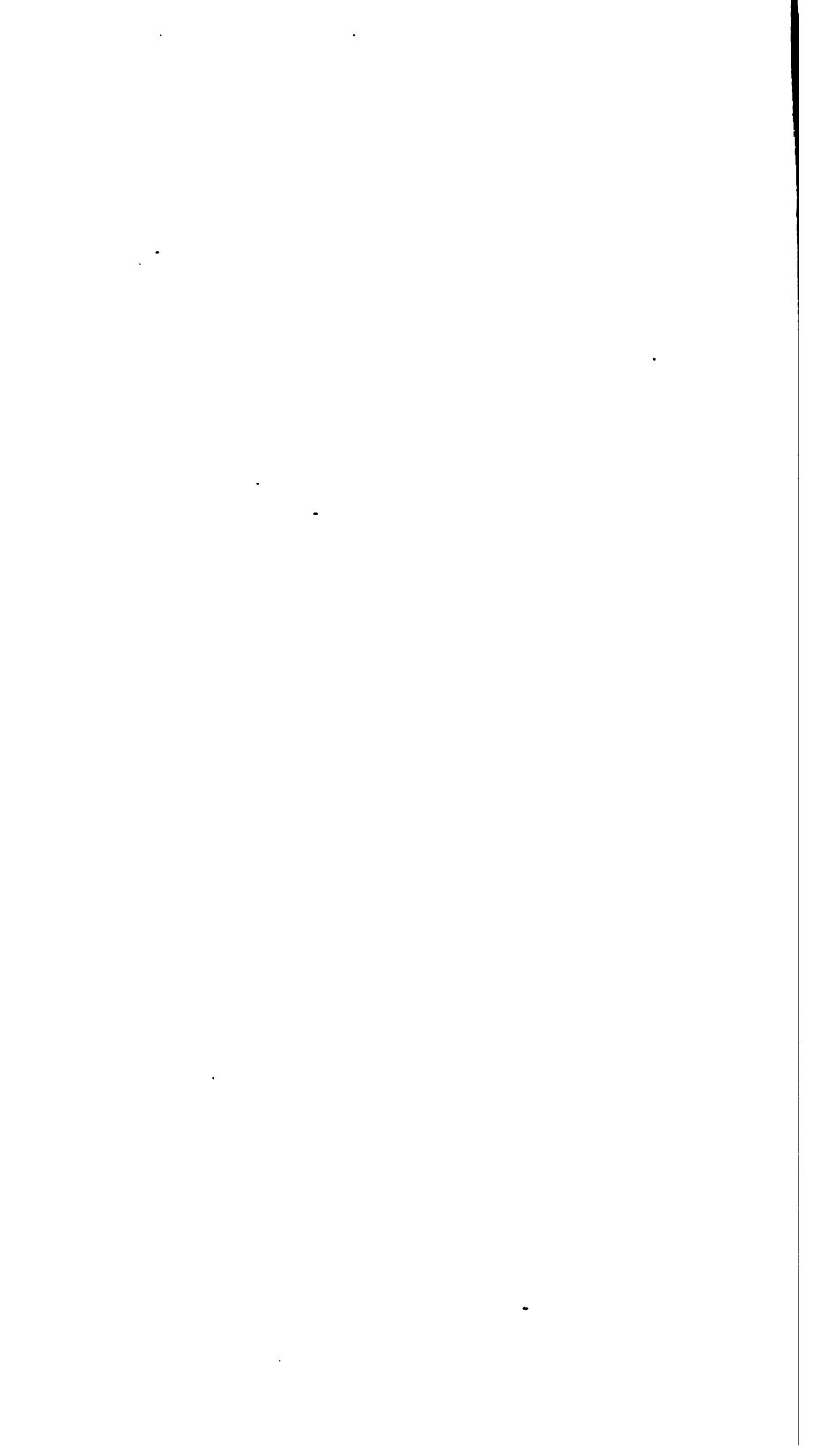
The admirable purposes and results of the Palestine Exploration Fund of London are well known in this country, but hitherto very little effort has been made to enlist the coöperation of our countrymen in their important efforts to thoroughly investigate the land of the Bible. At first this seems a little strange, for the Americans were pioneers in the field of inquiry, and since those epoch-marking researches of Dr. Edward Robinson, and his learned associate, Dr. Eli Smith, several of our countrymen have made important contributions to the geography of the East. In Palestine alone the researches of Lynch, W. M. Thomson, Barelay, Osborn, Hackett, Wolcott, Johnson, and many others, are especially noteworthy. A plan of coöperation has lately been proposed by which Americans can help forward the work of Syrian exploration more effectually, it is thought, than by contributing

to the English fund. A committee has been formed in New York, made up to a great extent, of persons who have travelled in the East; and it is purposed to collect a sum of at least \$10,000 to be expended by this committee upon some limited region where the English are not at work, thus supplementing their investigations. The Archbishop of York has written to the president of the American committee, Dr. Jos. P. Thompson, expressing the satisfaction felt by the English committee of which he is chairman, at the formation of a committee in New York, so that no apprehension of rivalry or reduplication need be anticipated. Dr. William M. Thomson of Beyrout, has made a recommendation which the New York committee adopts, that the field of exploration be the region east of the Jordan Valley and the Dead Sea; if possible also, Hermon, the Lebanon, and the plains and valleys of Northern Syria. He suggests Kerak, south-east of the Dead Sea, as the first station for the Moabite region, and thence he would have the survey continue through Gilead and Bashan into the east region of the Hauran.

No one can doubt the fruitfulness of this field in geographical and archæological respects. To secure the harvest, only money is needed; services of competent men will then be engaged as explorers, equipped with all the resources of modern science. Certainly in a plan like this, the American Geographical Society must take a deep interest.

Mr. President: My hour is gone; my task is done. Let us hope that the current year will be as full of good results as that which we have reviewed.

THE UNIVERSITY OF CHICAGO PRESS



III.

NOTES ON GIOVANNI DA VERRAZANO AND ON A PLANISPHERE OF 1529, ILLUSTRATING HIS AMERICAN VOYAGE IN 1524, WITH A REDUCED COPY OF THE MAP.

By JAMES CARSON BREVOORT.

READ NOVEMBER 28TH, 1871.

INTRODUCTORY.

The discoveries made in the great ocean by Columbus at the close of the fifteenth century, gave to the Spaniards a supposed claim not only to coasts and islands which they had seen, but also to *all* the unknown lands and seas *beyond* and to the west of a certain meridian of longitude. This demarcation line, however, was not based on any better right than the partition of the heathen and undiscovered countries of the globe between Spain and Portugal, confirmed by the Pope, Alexander VI, in May and September, 1493,* and further, but not definitely settled between these two nations in June, 1494. As time passed on, the hopes entertained by the Spanish sovereigns were dispelled by the assurance that the western waters did not anywhere, as supposed by Strabo,† afford a clear seaway to the eastern shores of Asia, for a

* See Humboldt, *Examen Critique* and *Cosmos*; also Oscar Peschel, *Die Theilung der Erde*, etc., 1871.

† While the mathematicians teach that the circle passes behind it (the earth) and returns into itself, so that did the magnitude of the Atlantic not prevent, we might navigate on the same parallel from Spain to India.
[Lib. I.]

new continent interposed itself, which up to 1524, had been found continuous from Florida to the distant southern strait discovered by Magellan.

In 1513, Balboa discovered the South Sea, thus revealing a probable division of the New World into a southern and a northern continent, which last was, however, supposed to be a part of Asia until 1540. The South Sea was thus named, because it was supposed to lie to the south of this eastern extremity of Asia, and on many maps of the time, it was thus represented. The probability, however, of the existence of a narrow strait or water communication between the South Sea and the Atlantic, just north of Mexico, was a favorite theory among geographers, long believed in, leading to many voyages for its detection, and which, as a search for a north-west passage, survived to this day, when having been found, it turns out to be impracticable.

It was the hope of making such a discovery that impelled the navigator, whose voyage we are about to examine, toward that part of the New World which still remained unexplored, and we shall briefly review the geographical discoveries which, up to the year 1524, had been made from the north and from the south, along the coast of the present United States of America.

In 1513, Juan Ponce de Leon discovered the mainland of Florida, and afterwards sent out exploring expeditions along its Atlantic coast, which do not appear to have got beyond the mouth of the Rio de Chicora, or Savannah River, in latitude 32°. He died in 1521 from a wound received on his last voyage while fighting with the natives.

The Licentiate, Lucas Vasquez de Ayllon, in 1520 and 1521, explored the coast north of the Savannah, and appears to have reached Cabo Santa Helena, or Cape Fear, in latitude 34°, and somewhat beyond it. It is claimed by some that his vessels had reached to the Bahia Santa Maria, or Chesapeake Bay, before 1526, the date of his last expedition. The coast-line of the Gulf of Mexico

was slowly explored from 1498 to 1518, when the hope of an opening into the Mar del Sur was abandoned.*

The coasts of Newfoundland, or Baccalaos,† and of Nova Scotia, or Terra de Bretones, had been explored by the French and others on fishing voyages, at least as far south as Cape Sable, or to the Penobscot (Rio de Norumbega), in latitude $43^{\circ} 20'$, before 1524. These explorations from the north and from the south left a gap between latitudes 34° and 43° north, which the geographers of the Congress of Bajadoz, in 1524, seemed unable to fill, having discovered that no official examination of the coast between Florida and Terra Nova had ever been made.

The hearsay report of Sebastian Cabot, who was said to have followed the coast from Newfoundland to Florida without finding an opening to the west, does not appear to have had any influence on the question. He was himself one of the members of this Congress, and could have cleared up this point if he had really coasted these shores in 1497 or 1498, as told by Peter Martyr. ‡

Estevan Gomez,§ a Portuguese, in Spanish employ, who had accompanied Magellan as far as the strait, a member of the Congress, and who had proposed a search along this unexplored coast, was therefore officially commissioned to look for a passage westward between these parallels. He sailed in February, 1525, and was absent about ten months, coasting from north to south, having distinctly ascertained that a continental shore filled the void, thus completing the line of an impenetrable barrier across a westward route to the Spice Islands, extending from latitude 53° north, to the Straits of Magellan, in 54° south.

The return of the Vittoria in 1522, under Sebastian Del Cano, the only ship left of the five which had sailed

* See note, *Gulf of Mexico*.

† See note, *Baccalaos*.

‡ See note, *Cabot*.

§ A full account of the voyages of this navigator has been prepared, and will soon be published, by the Hon. Henry C. Murphy.

in 1519 with Magellan, led to much speculation concerning a nearer way to the Moluccas than the one thus opened by the Spaniards. Many minds were excited, both by this great feat, and by the reports of the rich empire which Cortes was then conquering, to new geographical enquiry. Cortes himself offered, in 1524, to search both oceans for the supposed northern strait leading to the west, though it appears that he confined himself to exploring the South Sea only.*

Meanwhile the attention of Francis the First was turned in the same direction, whether from the report that such a blank was to be filled in the maps, or that the French king had learned as much from his own cosmographers. That he hoped to find a short passage to the Moluccas, we know from the letter of Giovanni de Verrazano of 1524, who had been directed to search for it. Perhaps among the crews of the vessels captured by this navigator on previous corsairial expeditions, there were men who had revealed to him the state of Spanish geographical knowledge, and the probability of a western passage, to be found between the parallels above mentioned. It was also no doubt the desire of the king to discover a rich empire like Mexico, which the Spaniards were then plundering, and which might open to *him* also a supply of the precious metals. Verrazano seems to have failed in a first effort to sail, with four vessels, as he says, northwardly, but with one vessel only he started again, and after an exploration of some months, between the parallels of 34° and 50° N. according to his own estimate, he returned with information that no passage could be found.

The explorations of Verrazano and of Gomez on the eastern shores of North America, and those directed by Cortes on the west, closed all hopes of a short sea-way to the Indies. But the entire disconnection of Asia with America was not positively proved until Behring discovered in 1728, the strait to which his name was given.

* See notes, *Cortes* and *Zuazo*.

DISCOVERY OF THE VERRAZANO PLANISPHERE OF 1529.

The interesting discovery by Mons. R. Thomassy, an experienced archivist, author of interesting geographical papers and of the geology of Louisiana, among the maps of the *College de Propaganda Fide* in Rome, of a *Mapa-mundi*, made by a certain Hieronimus de Verrazano, dating from about the year 1529, was first made known in a paper entitled *Les Papes Géographes*, published in the *Annales des Voyages*, Paris, 1852.* Mons. Thomassy could hardly have been aware of the keen interest that such a discovery would awaken among those interested in early American explorations, or he would have given a less meagre account of this precious map. He deserves our sincere thanks, however, for drawing attention to this and other valuable geographical monuments preserved in Rome, and which seem to have escaped the active research of Humboldt and Jomard. A study of this map by the author of the *Examen Critique de la Géographie du Nouveau Continent*, would have been fruitful of results, and we can hardly venture to tread a path which he first opened, without great diffidence, and the hope that the investigation which we may only sketch out, will by others be prosecuted to definite results.

Our remarks are based upon a study of two photographic copies of the original map, which, after long and repeated attempts, have at last, through the kind offices of Mr. Thos. E. Davis, been procured from Rome by the President of this Society.†

These photographs are now before you, but are unfortunately not distinct enough to enable us to read the names inscribed along our coast, between the points which limit the explorations of our navigator. This is most unlucky, and another copy must be procured before the critical examination of the subject can be properly

* See note, *Thomassy*.

† See page 80 of the Report of this Society for 1871.

undertaken. We have deciphered a few of the names, and have prepared a careful copy of that part of the Mapamundi which more specially interests us as Americans.

The original map is on three large skins pasted together forming a sheet, according to Mons. Thomassy, the first describer of the map, 260 centimetres long and 130 high; say 102.36 inches by 51.18 inches, or with a width twice as great as the height. It is a general map of the world, as known to the designer of it, Hieronimus de Verrazano, but it bears no date. From the remark written under the name Nova Gallia, that this land was discovered five years before, we infer (supposing the date of Giovanni de Verrazano's voyage, as given himself, to be 1524), that the map was made in 1529. There is good reason to believe that Hieronimus (Jerome) was a brother of John, and that he put down the coast here alluded to from authentic data furnished by his brother.

There are certain coast features drawn on the map, which are not alluded to in the letter, seeming to prove that Jerome had his brother's charts before him. The plain indication of Long Island Sound, and of Cape Cod, is of itself sufficient proof that it was compiled from original drafts or notes. The latitudes, however, differ entirely from those given in the letter. The truth, perhaps, cannot be developed until this chart, which is open to examination, has received a closer study. New copies of it are needed, which may more faithfully render the coast names and minor details.

Further remarks on the map will be found in the notes to this paper.* The great interest that attaches to it, in our eyes, is the fact of its being the earliest known tracing of our coast, as made from actual exploration.

The only account of Verrazano's voyage left to us is in the form of a letter, written from Dieppe, July 8, 1524, to

* See note, *Verrazano's Planisphere*.

the French king, in which he gives a short and sketchy report of his explorations, without naming any points, and in such general terms that many have doubted the genuineness of the letter. It was not published in France, but first appeared in Italian, in Venice, 1556, in the third volume of the *Collection of Voyages*, edited by Ramusius, which was prepared in 1553, but no document positively confirming the letter has since been found.

No serious doubt, however, had ever been raised impugning the truth of this letter until the late Buckingham Smith attempted, in two critical articles, published in 1864 and 1869, to disprove its genuineness.

LIFE AND VOYAGES OF VERRAZANO.

Geographers, as well as historians, meet with many historical riddles. Even concerning Columbus, much remains to be explained, and of the early voyages of Sebastian Cabot just enough is known, in the lack of further documentary evidence, to render the search for truth almost hopeless. The voyages of Americus Vesputius present a wide subject for controversy, and the few facts concerning Verrazano, whose voyages more closely than any other early navigator relate to our own coast, invite the most searching criticism of geographers.

We have, in this case, to deal with an individual who was known under two characters, as a privateer and as an explorer. On this account we must treat of him in each character separately, in order not to confuse the narrative of his career. In later times, a Hawkins or a Drake, a Cavendish or an Anson, united these opposite occupations and were famed in both, but Verrazano's exploits as a corsair have been hitherto only alluded to in scattered notices, and uncertainty rests on the time and manner of his death. He was the first to show how the growing power of Spain could be crippled, and Spain, in return, has not honored his memory.

We have collected many detached notices of his cors-

airial employments, and have endeavored to partly clear up the mystery of his death.

FAMILY OF VERRAZANO.

The Verrazano family belonged to Florence, and our navigator, according to Giuseppi Pelli,* was the son of Pietro Andrea and Fiametta Capelli. From the letter of Annibale Caro, quoted by Tiraboschi,† we learn that he had a brother, probably Hieronimus or Jerome, who composed the map before us. According to Prof. Geo. W. Greene, the Cavaliere Andrea, the last one of the family died at Florence in 1819.

Pelli supposes that Giovanni de Verrazano was born after 1480. This date, together with the fact that he had resided several years in Cairo and Syria,‡ form the substance of all that can be ascertained about him in Italy. Engaged in the trade of spices, silks and the precious commodities of the east, which were slowly brought, after numerous barter, to the ports of the eastern Mediterranean, where vessels from the trading cities of Italy awaited them, our navigator learned what a gain it would be, if these necessary commodities could be procured by a direct sea voyage to the Moluccas.

At what time he became a seafarer and on what seas he sailed previous to the year 1521, we have no information, unless we accept the vague indications contained in Carli's letter. The late Buckingham Smith ascertained, from Portuguese authorities, that he was in the East Indies in 1517, probably making the voyage in a Portuguese vessel. Possibly, after an experience of some years in the Mediterranean, the cradle of European nautical enterprise, he may have entered the service of Spain, who at that time was drawing soldiers and sailors from every part of Europe, and in her service must have

* See note, Pelli, *Elogio de Verrazano*.

† See note, Caro.

‡ See note, Carli's letter.

learned the track followed by her vessels for trade or conquest to the West Indies.* Nay, he may himself have sailed to the West Indies, as it seems he did with the Portuguese to the Moluccas. The route to the latter by the Cape of Good Hope, was discovered in his time, and the quite recent oceanic discoveries of the Spaniards, seeking the far east by the west, must have further excited his ambition, and increased his desire to open a still shorter water communication with Cathay and the lands of the great Khan.

In 1521, Verrazano appears as a French corsair off the southern shores of the Iberian peninsula, and thenceforward Spanish historians make frequent mention of him under the name of Juan Florin or Florentin, never, however, adding the surname Verrazano.

VERRAZANO AS A CORSAIR.

As a corsair, his exploits have hitherto been known only from a few passages in Barcia† and Herrera, while, curiously enough, the letters and decades of Peter Martyr‡ and the history by Bernal Diaz, § which contain dates and interesting details relating to these incidents, seem to have been overlooked. The late Buckingham Smith, who wrote several notices of him, and was engaged upon another at the time of his death, was about to explore this field.

A distinct reference to his predatory cruises against the Spaniards is made by Juan himself, in the heading of his letter to Francis the First, which identifies him with the feared Juan Florentin, the corsair. |

We might otherwise hesitate to accept the fact, which

* See note, *Routes to the Indies*.

† *Ensayo Cronologico para la Hist. gen. de la Florida*. Madrid, 1728.

‡ *Opus Epistolarum, Compluti (Alcala)*, 1590, and *Paris*, 1670; *Decades de Orbe Novo*, *Alcala*, 1590. *Paris*, 1587.

§ *Historia Verdadera, etc.* Madrid, 1632.

| See Appendix, *Identification of Florin as Verrazano*.

is stated by Barcia alone. Other Spanish authors, such as Herrera, speak of the explorer Verrazano, as if he were a distinct character.

Soon after the gold-producing islands of the sea had been discovered and made productive by the Spaniards, corsairs of various nationalities began actively to dispute the rich spoil of these new Indies with their grasping conquerors. These corsairs watched the south-western coasts of the peninsula, and no doubt many a rich capture was made by them before Juan succeeded in his daring project of lying in wait to seize the treasure-ships of Cortes.

The first gold from Mexico, together with curious specimens of the handicraft of the natives, collected by Juan de Grijalva in 1518, was sent to Diego Velasquez, the governor of Cuba, in charge of Pedro de Alvarado; and the king's share was received in Spain early in 1519. The first treasure collected by Hernando Cortes, who landed in Mexico in 1519, was despatched direct to Spain,* the vessel sailing from Villa Rica de Vera Cruz, July 26, 1519, in charge of Alonzo Hernandez de Puertocarrero and Francisco de Montejo, and arriving at San Lucar in October,† after a short stoppage in Cuba.

The king, however, was at that time in Flanders, and the treasure was not presented to him until March, 1520, at Tordesillas.‡ No doubt, the news of this rich arrival was at once noised abroad, and led to the fitting out of corsairs by France, in order to share in the golden harvests of the Spaniards.

* The vessel was carried by Alaminos, her pilot, through the Florida channel (reconnoitered by him in 1518, while accompanying Ponce de Leon), in order to avoid passing near Cuba. It was the first voyage to Spain made by this route.

† See Peter Martyr's letter of December 2d, 1519.

‡ A more correct account, by an unknown hand, given in the *Documentos Inéditos* vol. i, 1842, p. 421, says that the first things sent by Cortes were presented to the emperor, in Valladolid, during holy week (April 1-8), 1520.

Another consignment of gold from Hispaniola, according to Peter Martyr,* fell into the hands of Juan Florentin in 1521, being his first recorded capture of treasure. Peter Martyr estimates the value of this prize at 80,000 ducats, besides a large quantity of pearls and sugar.†

As Cortes despatched his vessels directly home, without permitting them to stop at any of the West India islands, and as this vessel was from Hispaniola, it seems certain that it was not sent by the conqueror of Mexico. Barcia gives the same date, but the ship he speaks of was taken in 1523.‡ Bernal Diaz does not speak of this vessel's capture, as it was not one sent by Cortes.

Herrera| gives, perhaps, the most reliable account of the doings of the French corsairs in this year. He says that these corsairs were cruising on the coasts of Andalusia and the Algarves, watching for vessels from the Indies. Four or five vessels were therefore ordered to be fitted out at the cost of the foreign merchants, and the command of them was entrusted to Don Pedro Manrique, brother of the Conde de Osorno. Two of them were commanded by Estevan Gomez and Alvaro de la Mesquita. The first of these was a pilot under Magellan, and had abandoned his commander October 8, 1520, when partly through the strait, imprisoning Mesquita, his nephew, captain of the San Antonio. They had reached Seville, May 6th, 1521, and while awaiting the issue of their dispute were thus ordered into service.

Just as they were about to sail, news was brought that the French corsairs had taken two out of three caravels coming from the Indies. The third, with the smaller part of the treasure, was said to have escaped. It was

* See his letter of November 19, 1522, and decade v, chap. 8.

† See notes, *Martyr*, Dec. v, chap. 8. His letter of March 6, 1521, mentions the arrival of a despatch, and speaks only of treasure expected.

‡ *Ensayo*, 1723, page 8, see note, *Barcia*

| Dec. III, Lib. I, Cap. XIV, 1531

added that the corsairs were watching to make the capture of five expected Portuguese vessels.

A light vessel was therefore sent to the Azores to warn these of the danger they were in, and the convoy then started in pursuit of the corsairs. It found, on the 24th of June, seven French vessels anchored under Cape St. Vincent, which came out to meet it and gave battle. The French retired at last, and were chased all night, but in the morning turned on their pursuers. Manrique got the wind of them, when they again fled, and were chased forty leagues. He recaptured a prize loaded with wheat, and another with artillery and arms, and took all the small boats of the French.

Manrique returned to San Lucar to repair damages, hastening matters by a forced levy on the merchants, as he wished to join a Portuguese fleet, going to the islands to convoy the vessels from Calcutta.

Having waited at the islands until August, it became certain that the five ships would not arrive this year from the east, so Manrique left the Portuguese fleet there, with supplies for the expected vessels, and cruised on the Spanish coast, having learned from a vessel plundered near Galicia, that twenty-six corsairs had been seen in one place and twenty in another.

It appears, therefore, that the French corsairs were very active in this year, but Herrera does not mention Florin as a commander of any of them. Martyr alone names him, and we depend upon his authority only. No captures of treasure-vessels are reported as having been made after the month of May. No doubt the treasure taken early in the year was at once sent home, probably to La Rochelle, which appears to have been the place where Juan had been fitted for the cruise.

The coast of Andalusia, between Gibraltar and Cadiz is high and indented by wild and sterile valleys, then almost uninhabited, and the pirates would lie there, watching from the heights for approaching vessels, which,

habitually sighted Cape Trafalgar on their return from either of the Indies. On this account homeward-bound vessels, about 1524, were ordered to make for the port of Corunna.*

During the rest of 1521, or in 1522, Verrazano may have attempted the first voyage of discovery alluded to in his letter to King Francis, but of this we shall speak further on.

On this first cruise he says he had four vessels, and the expression in the preamble to the letter, "*that which had been accomplished by the four ships*," alludes, no doubt, to the rich spoil he had taken from the Spaniards in 1521, as well as to the attempt to sail to the north-west. This supposition finds confirmation in the same heading of the letter, where, in allusion to another cruise, the words "*what we did with this fleet of war*" seem to refer to his great capture of 1523. He was not making open war on the Spaniards, and had, no doubt, been instructed to conceal all mention of any aggressive acts toward them.

In 1522, he seems to have made an unsuccessful cruise, at least if we can believe Viera, the historian of the Canaries,† who, writing in 1772, seems to have neglected the authors we have quoted, but derives his information on the subject of Verrazano from the MS. history of Don Pedro Augustin del Castillo, preserved in Teneriffe. In this year, as he says, the governor of these islands, Pedro Suares de Castilla, ordered a squadron of five small vessels to seek for the corsair. It met him off the Punta de Gando, with seven captured emigrant vessels, which he had taken while on their way from Cadiz to the islands. He was chased and forced to release his prizes, which seem to have been of little value. Viera adds that he betook himself to the Azores, and there captured two treasure-ships of Cortes, but this occurred, as we shall see, in 1523. It is uncertain whether he returned in 1522

* See notes, *Martyr*, Dec. 8.

† See notes, *Viera*.

to France, or remained in Spanish waters. Martyr,* in 1522, records a rumor that the French pirates had fifteen ships, and that many of them were cast away on the coast of Africa. This report may have been a garbled version of the story told by Viera.

On the 15th of May, 1522, Cortes despatched his third letter to the king, dating it from Cuyoacan, near Mexico, after the capture of the capital. The consignment accompanying this letter comprised in treasure, jewels, rarities and live animals, the most valuable collection hitherto sent from the Western Indies to Spain. It included the emperor's fifth, a present from Cortes and his men to the monarch, and consignments to individuals. Two of the three vessels bearing this precious freight were in charge of Antonio de Quiñones and Alonzo de Avila, Diego de Ordaz and Alonzo de Mendoza, while Juan de Ribera, the secretary of Cortes, was made the chief envoy, and entrusted with the despatches and the presentation of the imperial share of the treasure, borne on the third vessel.† A glowing description of the treasure and curiosities can be found in some detail in Martyr, Oviedo, Gomara, Herrera and other Spanish historians.

According to Bernal Diaz, these vessels left Vera Cruz on the 20th of December, 1522. This date is erroneous, and although we do not know the exact day of their departure, it was made, probably, in June, 1522. They passed into the Atlantic through the channel of the Bahamas, piloted, as before, by Antonio de Alaminos, the discoverer of this passage.‡ One notable event of the voyage was the escape from its cage of a tiger, which killed and wounded several sailors. The little fleet put in at the Azores, where two of the vessels, fearing corsairs, concluded to remain, and actually stayed, over the winter,

* Dec. 5th, chap. 8.

† According to Martyr. Herrera, Dec. III, Lib. III, Cap. I, is confused on the subject.

‡ See notes, *Gulf of Mexico*.

but the third, bearing Juan de Ribera and a small part of the treasure, continued the voyage and reached Spain in safety. The treasure had been long expected, and Peter Martyr says, in a letter of July 14th, 1522, that the vessels had been sighted off the coast, but this proved a false report. In his letter of November 19th,* he speaks of Juan de Ribera's quite recent arrival. Tired of waiting at the Azores, Diego de Ordaz and some others also reached home safely, in a Portuguese vessel.

In 1523,† the Council of the Indies, either of its own accord or acting on a decree of the emperor, had instructed Capt. Domingo Alonzo to convoy a fleet of East Indian bound vessels as far as the Canaries,‡ and then repair to the Azores, with his three caravels, and convoy the Mexican vessels home. The rich convoy sailed from Santa Maria, of the Azores, about the middle or end of May, 1523. It consisted of the three vessels of war, the two treasure-ships of Cortes, and of another treasure-ship from Española. When the fleet were just about to sight Cape St. Vincent, and were thirty-five geographical miles (ten Spanish leagues) from it, a fleet of six vessels was descried coming to meet them. Probably they were mistaken for Spanish vessels, and were allowed to come close aboard; at any rate, the strange fleet attacked them, proving to be armed French corsairs, fitted out from La Rochelle, and under the command of the dreaded Juan Florin himself.

One of the Spanish caravels took to flight; the others fought bravely, but were overcome and forced to surrender with their convoy, Antonio de Quiñones being killed during the action. § The date of the capture is not given,

* See notes, *Martyr*, *Contarini*.

† See notes, *Martyr*, Dec. VII, Cap. IV; and also *Cortes de Valladolid*, 1523.

‡ These were the first Spanish trading-vessels bound there, the *Vittoria*, under Sebastian del Cano, having returned a few months before, viz., September 6th, 1522.

§ See note, *Herrera*, 1523.

but Martyr's letter concerning it was written June 11th, 1523, and Contarini's on the 7th, probably within a week of its occurrence.* Curiously enough, there is no distinct mention of it in the decades of Peter Martyr, though he speaks of it in 1525 as an event that happened three years before. The two treasure-ships were taken, and Herrera and Gomara include the ship from Española, also. With this great prize, perhaps the largest made up to that time, and with Davila a prisoner, Florin got safely home to La Rochelle. Davila was kept a prisoner there for three years. A portion of the treasure was laid at the feet of Francis the First.

Charles felt the loss deeply, and soon afterward issued a second order,† of wider application than the first one of 1523, and the Council of the Indies thereupon ordered that all homeward-bound vessels should rendezvous at Hispaniola, in order to be convoyed safely home. Contarini says, that he ordered pursuit to be made from several ports, offering the pursuers one-half of the treasure if it could be recaptured.‡

The disappointment of Hernan Cortes, when he learned of this loss, may be imagined, but drawing a lesson from experience, he took measures also, in order to avoid such mishaps in the future.

The Spaniards complained bitterly of these depredations, committed by vessels countenanced and perhaps sent out by a friendly sovereign, but the neutrality obligations of those days were almost as lax as those of some modern maritime powers. The Greeks, Moors and Normans had been leading piratical nations, and the Norse taste for predatory expeditions developed the race of buccaneers, which inflicted so much loss and damage on the Spaniards in the seventeenth century. The jealous

* See note, *Martyr*, *Contarini*; see *Oviedo*, for an estimate of the value of the capture.

† See *Cortes de Toledo*, 1525, and *Herrera*, Dec. III, Lib. VII, Cap. IV.

‡ See note, *Contarini*.

colonial policy of Spain encouraged in other nations a desire to partake in the rich harvest, and in the end, impoverished her. Had the colonies been thrown open to foreign settlement and to a trade at least partially free, instead of being treated as they were, as part of the royal patrimony, a widely different result would have ensued.

Verrazano, who probably reaped a large share of the treasure and spoils derived from this capture, was again fitted out with a stronger fleet than before, and, according to Barcia, who is not always reliable in his accounts, made innumerable prizes in Spanish waters. He may have made another piratical trip in 1523, but if so, there is no particular mention of him in connection with it. Herrera says, that Pedro de Manrique was sent out, probably after the decree of 1523 had been issued, with a strong fleet of five vessels to convoy, from the Azores, five vessels from Puerto de la Angra, in the island of Terceira, known as the Armada de Averias,* and carrying an immense treasure of gold, pearls, sugar, etc. This was brought safely to Seville, and half the treasure was borrowed by the emperor to pay for the outfit of his army against Francis the First.† Perhaps Verrazano had watched the armament of Manrique, and finding it too strong to be attacked, resolved to make a second attempt at exploration, refitting in Madeira, and starting with the Dauphine alone early in 1524.

After his return from this last voyage, under date of July 8th, 1524, he writes to the French king, reporting what he had accomplished, and seems to have repaired to court‡ in August, the king being at Lyons. We incline, however, to the opinion that he made other and successful piratical expeditions to his previous field of

* One fitted out by the custom-house authorities.

† Herrera, Dec. III, Lib. IV, Cap. XXI.

‡ He was expected there, according to Fernando Carlis' letter, first published in 1853; see notes.

adventure. The story that he was taken and hung in this year has been told by two Spanish chroniclers, but it cannot easily be maintained in the face of recorded facts to the contrary, which we shall presently bring forward.

We learn by a letter of Peter Martyr, dated August 4, 1524,* that Florinus had captured, but a short time before this date, a richly laden Portuguese ship, bringing from the Indies a freight valued at 180,000 ducats. If this prize was taken at this date by Verrazano, he must have fitted out for the cruise in great haste, if we are to accept the date of his letter of July 8th from Dieppe as a true one. Martyr was, no doubt, using Florin's name in this case without proper authority.

The Council of the Indies, acting on the royal decree of 1523, fitted out some well-armed Biscayan vessels, which encountered and captured, in 1524, a piratical French fleet, and the pirates were taken to Seville to be tried. That pirates were taken is probable, but that Florinus was taken with them, as stated by Bernal Diaz and De Barcia,† seems unlikely. Viera does not speak of such a capture, but as he writes only of the Canaries, he may have omitted any reference to it, as not being within his subject-matter. Herrera, the most reliable authority, is also silent about the matter, which in an author otherwise so minute and careful, is significant. Peter Martyr, too, so very communicative on all such matters, says nothing about the capture and hanging of French pirates. The only authors who mention such a capture, and who name Florinus as the captain of the pirates, are the ones above mentioned.

The first of these, Bernal Diaz, says that the pirates were taken to Seville, and that Florinus, with other pirate captains, was forwarded to Madrid, but that the king sent an order to hang them on the spot, and Diaz adds that

* See note, *Martyr*.

† See notes, *Bernal Diaz and De Barcia*.

the hanging took place in the *Puerto del Pico*. This port is on one of the Azores of the same name, and opposite Fayal, where criminals had from a very old date been hung, and until quite recently was still the scene of such executions. Bernal Diaz did not, perhaps, know that Pico was a small mountain village on the road to Madrid, and naturally made the above mistake. He, however, was in Mexico at the time, and his authority, in regard to the identification of Florinus with the person hung as leader of the pirates, is not of great weight.

The only other authority for the same facts is Gonzales de Barcia, who, writing in 1723 in his *Ensayo de Florida*, under the year 1524, says that four Biscayan vessels took Florinus and carried him to Seville, with his companions. He adds that they were sent, or were about to be sent, to Madrid, but that to satisfy an influential and angry clamor he was hung in the Puerto del Pico, together with the other pirate captains. Barcia, who seems to have copied Bernal Diaz and made his confusion still worse, seems to have made another mistake, for it is improbable that the corsair chiefs, once in Seville, should have been sent to the Azores for execution.

The late Buckingham Smith assured us that he had been to the village of Pico, and that he had seen and copied the order for the execution. Unluckily, as he stated, the order, signed by the king, was given at Lerma, where the court then was, but bore no date. These documents of Mr. Smith, which are soon to be published, and to which, on that account, access has been denied us, would prove that some pirates were executed at Pico, while the king was at Lerma; but the name Florinus, even if it appears in the judge's order, would not prove that the career of the corsair ended here.

Notwithstanding such evidence, we hazard the conjecture that the indignant Spaniards did not get hold of the right man, but that either they assumed they had him (for it seems that the commander in question had never been

seen by the Spaniards), or that the chief so mentioned was a delegate or lieutenant, perhaps a relative, of our hero, commanding his vessels while he was on his exploring voyage or attending the king. This is not an improbable explanation of what appear to be contradictory statements, for we have very strong and positive testimony that our navigator was alive after the year 1524.

Upon comparing the accounts left us by these two authors, it is almost certain that the last copied the first in most of the particulars relating to Juan Florin; and if so, the reported death of the corsair at the hands of the Spaniards must be taken as founded on hearsay only.

We learn from Peter Martyr that the French corsairs were actively and successfully cruising for Spanish prizes in 1525,* but he does not again name Florinus as one of their commanders. A French document of 1526-7, to be spoken of presently, would seem to show that Verrazano was still disposed to pick up a prize, if possible, and perhaps he did so, but this is merely conjecture. Let us however proceed to that part of his career which more nearly concerns us, namely his voyage to the American coast in 1524.

VERRAZANO'S VOYAGE TO AMERICA.

We shall now speak of our navigator in his character of explorer, though he is only known as such by a letter addressed to Francis the First, just after his return from a voyage across the western sea. That other papers concerning this voyage were written, we know from the statement of Verrazano himself, and from Ramusius, but these papers are not now to be found. The letter to King Francis, dated at Dieppe, July 8th, 1524, proposes to give an outline only of his doings as an explorer. By a singular chance, this letter or a copy of it, found its way to Florence, the home of its author, and the diligent

* See notes, *Martyr*, Dec. VIII, Cap. IX.

Ramusio, or as he Latinized his name, Ramusius or Rhamnusius, secured it for the third volume of his collection of voyages and travels (published in 1556), and prefaced it with a eulogy of the navigator. Without omitting anything of importance, Ramusius, as it will be seen, has amended the style of the original letter.

Were it not for this narrative, thus saved from oblivion by the Italian geographer, the name of Verrazano would have been an enigma to after ages ; for the meagre notices of him elsewhere found, would have afforded little to gratify curiosity. For three hundred years this letter was the only document attesting the fact of his voyage, and it seemed hopeless to expect that any chart, authenticating it, though such an one had been seen by the English geographer, Hakluyt, in 1582, should have been preserved to our times.

The letter of the Florentine, as it first appeared in 1556, unaccompanied by any confirmatory document, might well appear to be of doubtful authenticity. Such a letter might easily have been composed, either from oral or written information, by a clever writer familiar with the general results of the voyage of Estevan Gomez, in 1525, and it would of course be antedated, in order to establish a French claim to the hitherto unknown coast, from lat. 30° to 45° N, one thousand geographical miles in extent ; from Florida to Bacalaos. No doubts of this kind, however, appear to have been raised, perhaps because Verrazano and his voyage were too well known at the time, to permit such doubts to be entertained. The exploration is confidently spoken of by Pierre Crignon, in 1539,* as having been made fifteen years before this date. Ramusius publishes Crignon's Memoir in 1556,† in the same volume which contains the Florentine's letter and no doubt was ever raised against the voyage until recently. A map similar to the one described below, seems to have

* See notes, *Estancelin*.

† See notes, *Ramusius*.

been generally known to geographers about 1530, for the great western sea, which is depicted on the map found in Rome, appears on charts after that date, and the name New France was given to our coasts, by all except Spanish geographers,* even before Cartier's voyage of 1534, and before the third volume of Ramusins was published.

Verrazano was probably familiar with all previous explorations of the New World, including the recent return of Magellan's last vessel, and had learned also that the only unexplored gap in the line of the new continent was comprised within certain limits, say from latitude 34° to 45° North. The avowed object of his voyage was, therefore, the discovery of a strait or passage within these parallels, to Cathay and the Spice Islands, shorter than the one discovered by Magellan in the far south.

Finding the New World as a great barrier to the approach of the rich East, and realising after the discovery in 1513 by Vasco Nuñez de Balboa of the South Sea, near Panama, and the long voyage across it by Magellan in 1521, that Asia was not connected with America, *within the tropics*, the Spaniards had almost abandoned the search for a nearer passage by sea to the Moluccas, Cipango and Cathay. Just at this time, Verrazano made his adventurous voyage, unsuccessful as to its primary object, but most interesting to Americans, as the first account of our coast by a European.

A close and critical analysis of this letter has not yet been made. The late Buckingham Smith doubted its authenticity, and sought to prove, from the letter itself, as also by contemporaneous evidence recently brought to light, that it was fictitious, and was probably composed by some Italian, anxious to heap laurels on the brows of his countrymen. Mr. Smith's "Inquiry" of 1864, is ingenious but not exhaustive.† Shortly after its appear-

* See Münster's Ptolemy of 1530, and other maps given by Kohl; *Maine Hist. Soc.*, Pl. XIII-XV. Also notes, *Maps after Verrazano*.

† See notes, *B. Smith*.

ance, he learned that a map by Jerome Verrazano was preserved in Rome. In 1866, he published some remarks on M. Thomassy's account of it, still doubting whether it would serve to prove the genuineness of the letter. His idea of the original map seems to have been that it was on a very small scale, for he translates the modern label "*carta pecora*" (parchment map) as "*small map*." He endeavored, but in vain, to procure a copy of it, though, had he been successful, his opinions would have been materially altered.

Dr. J. G. Kohl, the most able comparative geographer of our day, has also examined the letter,* and finds no reason to reject it. He examines the narrative closely, presenting his views concerning the exploration, which are entitled to great consideration, although he had also been unable to procure a copy of the chart now before us to compare with the letter.

If the letter of 1524 had been fictitious, and had been written with the intention of supporting a prior claim by the French monarch, it would have been heralded forth and great efforts would have been made to circulate it as widely as the despatches of Cortes, which appeared about that time. Documents giving the instructions or patent to the explorer would have accompanied this manifestation, and a map would have been given or spoken of as a proof of the actual exploration. It may be urged that the disasters which overtook France, and the capture of the king, prevented this publication, but these being past, no attempt was made to wrest from the Spaniards the claim acquired by the voyage of Gomez. The main object of the voyage, besides the discovery of a strait or passage to the Indies, was, no doubt, the further hope of finding another Mexico to conquer and plunder.

Disappointed at the poor results of the voyage, the French gave it no further thought, and similar indiffer-

* Op. cit., p. 248-70 and p. 290, note; also in notes.

ence attended the Spanish voyage of Gomez. These explorers brought home no gold, and reported but little that was inviting to Europeans. The notion that the precious metals were only to be sought for under the tropics was deeply rooted in the minds of men of that day, and the failure of the Cabots and Cortereals to discover rich countries in the north caused these early explorations to be neglected.

The learned and painstaking Italian editor, in his prefatory remarks to the letter, * expresses most distinctly his belief in the person and exploit of Verrazano, saying that he had received from many persons who knew him, the views entertained by the explorer respecting further voyages to be made to these coasts for settlement and discovery. Ramusius also had seen or heard of other letters, which he says were then lost, apparently stating it as a fact known to others besides himself. Pierre Crignon, writing in 1539, speaks of the voyage as having been made fifteen years before, without having, apparently, any knowledge of the letter to the king, first printed in 1556.

Hakluyt is another witness to the truth of the voyage, though of a much later date; but his statement is very explicit, and confirms the fact that Verrazano had prepared a map, which he had seen. In another memoir of Hakluyt, which is about to be published by the Maine Historical Society, this map is again spoken of.†

The existence of Verrazano, and of a map prepared by himself or by his direction, is thus put beyond doubt, and it will hardly be necessary to refute the arguments of the late Buckingham Smith in greater detail.‡

Sir Humphrey Gilbert, who was a diligent collector of charts in support of his views respecting a north-west passage, makes, however, no mention of Verrazano's map

* See notes, *Ramusius*.

† See notes, *Hakluyt*.

‡ See notes, *B. Smith*.

either in his discourse or map of 1566, although he speaks of the voyage as an accomplished fact.

This map, prepared, most probably, by Juan himself, (for his brother or relative Jerome is nowhere named by Hakluyt), was, no doubt, a duplicate of the one which he must have sent to the French monarch. It is nowhere stated that Juan was in England, and the story told by Hakluyt of his having made offers of discovering new lands to Henry the Eighth, has, so far, not a document to support it, though such an one may yet be found.

Who this Hieronimus di Verrazano, designer of the map now before us, could be, is uncertain. He is not mentioned anywhere, unless the allusion to Giovanni's brother, in Caro's letter, may have reference to him. Researches made in the proper quarter may explain his connection with the navigator. Possibly, he had accompanied his relative on the exploring voyage. He must have been an experienced cartographer, for his work is quite equal to anything of the kind at that date, and duplicates of it may yet be found.

We shall not attempt to criticise this newly revealed Mapamundi in detail. Any study of its general construction, and of its merits, would carry us too far away from the main point of interest to us, namely, its representation of our coasts as explored by Juan, in 1524, being the earliest authentic representation of them hitherto found.

The letter in question is given in the Collections of the New York Historical Society, Vol. I, New Series, 1841, with a translation of it, prepared by the late J. G. Cogswell. This translation was made from a manuscript copy which had been procured by Mr. G. W. Greene, in 1837, in Florence. Tiraboschi, in his History of Italian Literature, Vol. VII, page 261, had mentioned this text, and also a cosmographical treatise by Verrazano, as preserved in the Strozzi library in Florence. The Hon. George Bancroft drew attention to this notice in his History of the United States, Vol. I, page 20.

Mr. Greene, then U. S. Consul in Tuscany, found the MS. in the Magliabecchian library, which shared with the Laurentian, the old Strozzi collection, the former library receiving all the historical documents. The MS. is contained in a volume of miscellanies, marked class XIII, Cod. 89, *Verraz*. The letter and the appendix, Mr. Greene says, are "written in the common running hand of the sixteenth century, tolerably distinct, but badly pointed," and the rest of the volume, containing miscellaneous pieces, chiefly relating to contemporary history, is evidently the work of the same hand.

The text, however, although the same in substance, was found in point of style to be quite different from that given by Ramusius, who appears to have "worked the whole piece over anew," correcting and improving the sailor's rough language. The manuscript was full of Latinisms and barbarous forms intermixed with pure Tuscan. The appendix, not given by Ramusius, "does not appear to be free from errors, some of which may be ascribed to the copyist."

It is not known whether the letter was first written in French or Italian. The subscription is a Latinized name, but it could hardly have been written in Latin. Nor is the original mentioned anywhere by any immediate cotemporary but the one to whom its preservation is due. This letter is followed, in the Strozzi volume, by the letter of a young Florentine, Fernando Carli, addressed from Lyons to his father in Florence, portions of which we give in the appendix.

Carli was in Lyons when the letter reached the King, and it seems to have been circulated and talked about. Carli, who appears to have had a taste for the sea, and who had before given accounts of the doings of a fleet fitted out to pursue Moorish pirates, saw the letter, and writes August 4th, 1524, to his father, about Verrazano's voyage, which he knew would interest the Florentines as compatriots of the explorer. He says that he has added

a copy of Verrazano's letter to his own, and Mr. Greene thinks that these were circulated and copied in Florence; the Strozzi manuscript being probably one of these copies.

Carli's letter, however, was not published until 1853, when it appeared in the *Archivo Storico Italiano*, etc., Tome IX, Firenze. Mr. Buckingham Smith had it translated for his paper, read before the New York Historical Society, October 4, 1864, in the printed copy of which both texts of it are given. Mr. Smith treats this letter as a fiction, simply because it does not allude to any other event besides this voyage, which fact we consider to be the best proof of its genuineness. In fact Carli says that he has written about other news before.

As a confirmation of Verrazano's letter, we give Mr. Smith's version of Carli's letter, slightly corrected, in the appendix. It will be noticed that a distinct allusion is made to the cosmographical portion of Verrazano's letter. The mention of a disastrous beginning of the voyage, is owing to his confounding the first attempt with the second one. Near the close, he gives a clue to the fate of one of the two vessels, which from Verrazano's letter, might be supposed to have been lost. Ramusius found them in Florence, and copied the Verrazano letter only, omitting the cosmographical appendix and Carli's letter.

Mr. Greene, in his article on Verrazano, which appeared in the October number of the *North American Review*, and in his *Historical Studies*, which we have freely used in this memoir, mentions the researches made by himself elsewhere in Florence, in order to glean some facts concerning Verrazano, but that none were found. An examination of the family library, left by the last of the race, then recently deceased, had been made by an Italian bibliographer, who stated that he had found nothing about Giovanni, except "a manuscript bound up in the family copy of Ramusius, and a few loose papers. These

last added nothing to what was already known. The former was purchased by Capt. Napier, R. N., and is now in England." Mr. Greene presumes that the MS. in the bound volume, was the cosmographical appendix, or perhaps a copy of the same text as the one in the Magliabecchian library. He expresses a wish that Capt. Napier would publish it, if it should prove to contain anything not hitherto printed. As this has not been done, it is to be supposed that the surmise of Mr. Greene was correct.

Let us first take up the heading of the letter, which we translate, giving also the original texts of it, both from Ramusius, and as published by Mr. Greene, in a note to his paper above quoted.* The text as given in the New York Historical Society Collections, varies slightly from it. Paraphrasing it afterwards, according to our sense of its meaning, is, perhaps, the readiest way of criticising it.

"The Capt. Giovanni da Verrazano, Florentine from Normandy to the most serene crown of France, says:

"After the luck met with on the Northern coasts, most serene Lord, I did not write to your most serene and most Christian Majesty, about that which had been accomplished by the four ships, which it had ordered on the ocean to discover new lands, thinking that it would have been kept informed of all, how by the impetuous force of the winds we were constrained, with only the ships Normanda and Dalfina damaged, to run back to Brittany, where refitted, your sacred Majesty must have received the report of what we did with this fleet of war along the coasts of Spain, afterwards the new plan to pursue the first navigation with the Dalfina only, from which being returned, I will give an account to your sacred Majesty of what we have found."

Verrazano was not a ready penman and had neglected making any direct report to the King before this one, an

* See note, *Heading of Letter.*

omission, or neglect which he seeks to excuse or palliate in the above awkward manner. We now offer a paraphrase of this heading, as explained by what we have gathered together in the earlier part of this paper.

We made a first attempt at discovery (no date given, but probably 1522) with four ships, but were driven back by storms. The two ships *Normande* and *Dauphine*, ran back to Brittany (probably to Brest) damaged, where we refitted. (He does not speak of the fate of the two others, but as Carli states that a certain Brunelleschi turned back at the first untoward obstacle they encountered, it is probable that both came back safely.) I did not write about the ill-success of this voyage, knowing that you had been otherwise informed about it. After refitting and gathering a fleet of armed vessels, we cruised in Spanish waters and made prizes, as you well know. (He refers no doubt to his capture in May, 1523, of one of the treasure-ships of Cortes.) I then determined to sail from the *Desiertas* direct, with the *Dauphine* alone, (this was in the spring of 1524), and have now just returned from this voyage, &c.

Verrazano, as we have seen, was generally in the Spanish waters from May to November in the three consecutive years 1521, 1522 and 1523. As we have shown in the first part of this paper, he captured a vessel with a large amount of gold early in the year 1521. In 1522 he cruised near the Canaries, according to Viera, and was driven thence toward the Azores, and brought home no prizes. Perhaps, after taking some months to refit, he sailed on his first exploring voyage late in one of these years, which would account for his ill-success and return in distress early in 1523. We know that in May or June, 1523, he captured the best of the three treasure-vessels sent out by Cortes in that year. He then may have sent his prize, with other vessels home, and sailed January 17th, 1524, on his voyage to our coasts, the account of which is contained in the letter. It is hardly possible, as

suggested by Dr. Kohl, that he could have made the first voyage in the autumn of 1523, and made another just after it, in 1524.

We now give translated extracts of the most important passages of the letter, omitting the long accounts of the natives and selecting those which bear directly on the exploration of the coast. In doing this we have found it necessary to make a new translation, which is more literal than the one given in 1841, and which we believe to be a more strictly accurate rendering of the original.

VERRAZANO'S EXPLORATION OF THE AMERICAN COAST.

1. From the Desiertas rocks, near the Island of Madeira of his serene Majesty the King of Portugal, with the said Dauphine, on the 17th of the last month of January, with fifty men, furnished with victuals, arms and other warlike instruments, and naval ammunition, for eight months, we started, sailing westward with an easterly wind, blowing with gentle and moderate lightness.

1. 1524 was Bissextile.

The true date was January 27th, new style.

The Desiertas are in latitude 32 deg. 30 min., long. 16 deg. 30 min., thirteen miles E. S. E. from Madeira.

Appears to have sailed for over three weeks with the north trade-winds.

2. In twenty-five [27?] days we ran 800 leagues, and on the 14th of February we encountered a tempest as severe as any one that sails ever experienced, from which, with divine aid and goodness, and to the praise of the glorious name (of the ship?), which, fortunately, was able to stand the violent billows of the sea, we were delivered, and resumed our navigation, continuing towards the west, inclining somewhat to the north, and in twenty-five [21?] days more we ran 400 leagues, when there appeared a new land never seen by ancient or modern.

2. He changed his course to W. N. W. in about long. 55 deg. W., and must have passed well north of the Bermudas,* which appear to have been unknown to him, although they were known to the Spaniards long before, for they appear on the map in Peter Martyr's works in 1511. He well knew the extent of the Spanish and French explorations, and is confirmed in his statement by Herrera, who says that no Spanish vessel had been along this coast before the voyage of Gomez, in 1525.

3. It showed itself somewhat low at first, but on approaching it, within a quarter of a league, we knew by the great fires which they were making on the coast that it was inhabited. We examined it, running to the south, seeking to find some port in it where we could anchor the ship to investigate its nature.

3. Drifted northwardly by the Gulf Stream, of which he seems also to have been ignorant, his course must have been almost N. W. after the storm, and he could not possibly, as he claims, have made land in latitude 34 deg., but must have struck it about 39 deg. 30 min., off Little Eggharbor beach.

He sighted land about March 6th, O. S. The fires were made by the Indians, who then flocked to the shore in the spring, to feast on shell-fish and manufacture shell money. His most southerly point after this was in 39 deg. 5 min., for if he had made his landfall in a lower latitude he would have seen and placed on his chart the great gulfs, known as Delaware and Chesapeake bays. Of these there is no trace on the map.

His most southerly point must have been, therefore, in 39 deg. 05 min., a few miles north of Cape May. He says nothing about the great inland or western sea depicted on his map, separated by a narrow isthmus from the Atlantic, and near which is the inscription given elsewhere.

He may have learned from the Indians that there was a great sea to the west (the Delaware), or his sailors may have sighted what they took to be such from the mastheads.

4. For the space of fifty leagues we could not find a suitable port of any kind where we could safely stay, and

* See note, *Examination of the Voyage*.

seeing that the land continued ascending (*scendeva*) towards the south, we determined to turn and examine it towards the north, where we found the same [difficulty] in landing on the coast. Ordering a boat to land, we saw a number of people, who came to the shore of the sea, and who fled as we approached, sometimes stopping and turning around, gazing with much admiration; but reassuring them with various signs, some of them came near, showing great pleasure on looking at the wonders of our dress and figure and white complexions, making divers signals (to show) where the boat could most easily land, and offering us their food. We could not learn many details concerning their customs on account of the short stay which we made on shore, and the distance (of the ship) from the shore.

We found, not far from these, other people whose mode of life we thought to be the same, and the shore was covered with fine sand fifteen feet high, extending in the shape of small hills some fifty paces broad.

4. The description of the coast applies very exactly to the shores of New Jersey. Hudson, in 1609, describes it in almost the same terms, and saw so many fires, even in September, that he called one of the inlets *Barnende gat*, now Barnegat.

His vivid and flattering description of the country and of its forests is exaggerated, in order to heighten the value of his discovery. But few trees in leaf could have been observed as early as March. The earliest flowering tree is the dogwood or *Cornus florida*, which opens about May 10th.

5. Then ascending we found some arms of the sea which entered through some inlets washing the shore on one and the other side, as the coasts run. (*Poi ascendendo si trovana alcuni bracci di mare che entrano per alcune foci rigando il lito dall una all'altra parte come corre il lito de quello.* [This should, perhaps, read "channelling the beach from side to side as the coast runs."] When near by, the land shows itself broad, and so high that it rises above the sandy coast, with fine landscapes and a

country full of very great forests, partly open and partly dense, dressed in various colored trees of as great a size and agreeable appearance as it is possible to express.

5. This is the only description in the letter that we believe can be applied to the harbor of New York. He probably anchored outside of Sandy Hook or in the outer harbor, and saw Shrewsbury river, the Kills, and the Narrows, observed the bar and rapid tides, thus satisfying himself, without penetrating to the inner bay, that there was no strait here leading to the South sea. The expression "washing the shores on both sides as the coasts run" would apply to several parts of these coasts, but taken in connection with the "*several arms of the sea*," it applies especially to the two long sandy spits known as Sandy Hook and Coney Island, which form the entrance of New York harbor.

His mention of land rising inland makes it almost certain that he was in New York harbor. No such feature is seen south of it. He would have in view from his anchorage, Long Island, rising to about 100 feet, Staten Island to 307, and the Navesink Highlands 232 feet, these last being close to the shore.

6. It [the land] has many lakes and ponds of living water, with numerous kinds of birds adapted to all the pleasures of the chase. This land is in 34°, the air wholesome, pure, and tempered as to cold and heat. The winds do not blow fiercely in these regions, and those which prevail most are north-west and west.

During the summer season in which we were there, the sky is clear, with little rain; and when sometimes the southern winds bring in suddenly some fog or mists, they do not last, and are dispersed, it becoming pure and clear. The sea is gentle and not boisterous, its waves being gentle. Although all the coast is low and devoid of ports, it is not dangerous to navigators, being all clear and without any rock. The depth, as near as four or five paces from the shore, at high or low water, is twenty feet, increasing with such uniform proportion to the depths of the sea, with such good holding ground, that any ship, however tossed by a tempest in those parts, cannot perish.

provided the cable does not break, and this we have proved by experience. This we positively tested, for in the beginning of March, the winds blowing with great force, as in other regions, we were riding with the ship on the open sea, and found that the anchor must break before it would drag or make any movement.

6. This paragraph in the letter, including a part not here given, forms a *resumé* of all that he had observed up to this time, with general remarks that apply to the whole of our coast.

Notices the prevalent north-west winds, a peculiar feature in our climate. Also the absence of fogs, the absence of all out-lying rocks, and the good anchorage along the coast, with the shelving bottom. He exaggerates, however, the boldness of the coast, as forty or fifty paces would be the nearest distance for such a depth as he notes. This may be due to an error of the copyist. He could hardly have invented the combination of all these features, so different from any part of the European shores.

Comparing the narrative with the chart, it will be seen that there is an indentation of the coast which is, no doubt, meant to indicate New York harbor, for the trend of the coast here changes, as represented on the map and described in the letter.

7. We started from this place, continuing to run along the coast, which we found turning to the west [east], observing along the whole of it great fires from the number of its inhabitants. Approaching the shore to get water, there being no port, we ordered the boat on shore with twenty-five men [a large boat?]. On account of the very heavy surf beating on the shore, which was quite exposed, it was not possible, without peril of losing the boat, for any one to put foot on shore. We saw many people coming to the shore making various friendly signs, pointing out where we might land.

7. Leaving New York harbor, he finds the coast running west (evidently a mistake for east), and runs down the south shore of Long Island. There are but three or four practicable inlets along this coast, and they are not readily discovered when a few miles at sea.

Long Island, and particularly Rockaway bay, was a great resort for the purpose of manufacturing *wampum* or *seawan*, the money currency of the natives. Numerous shell beds line the shores of the bay where the manufacture was carried on. The incident related here probably happened on Rockaway beach, where the land meets the narrow and barren outer sand-bar, which for over seventy miles separates the ocean from the bay or lagoons behind it. It must have happened at some point where there is no outer beach.

8. Leaving here, and always following the shore, which turned towards the north (meaning somewhat to the north), we came, in the space of fifty leagues, to another land which seemed very beautiful, and full of the largest forests. Landing on it, twenty men went about two leagues into the land, and found that the people, from fear, had fled into the woods. We saw many of their boats, made from a single log twenty feet long and four feet wide, which are manufactured without [the help of] iron or stone, or any kind of metal, for in the space of the whole 200 leagues which we had coasted of this land, no stone of any kind was seen by us. By the aid of the fourth element they take out enough wood to serve for the hollow of the boat, and do the same for the bow and stern, so that in navigating it may cut the water.

The land, as to site, richness and beauty is like the other, full of forests of various kinds of woods, but not so odoriferous, from being more northerly and colder.

8. The south coast of Long Island has a general trend to the E. N. E., and there is but one conspicuous inlet (Fire Island inlet) along its whole extent of 115 geographical miles. The first third of the island lies nearly east and west, the rest turning to about E. N. E. by N. Thus his course, first east and then north, may be understood as applying to Long Island. By the expression "stretched to the north," he means that the land was to the north of him. He appears to have landed again near Quogue or Bridgehampton. His remark that this is *another land*, distinguishes Long Island from New Jersey distinctly.

9. After remaining in this land three days, riding on the coast, from the paucity of harbors, we resolved to depart, running always along the coast, between north and east, and only sailing [by day] and dropping anchor at night.

9. The navigator certainly repeats himself here, that is, writing carelessly or hurriedly, and having made digressions, he means that after leaving either New York harbor or the Rockaway shore he sailed rather more to the N. E.

10. At the end of a hundred leagues, we found a very pleasant site placed among some small rising hills, in the midst of which there ran towards the sea a very large river, which was deep at its mouth, and from the sea to the hills there, on the flood tide, which we found eight feet [rise], there might have passed ships of any burthen. Being, however, anchored on the coast in a good berth, we did not wish to venture in without a knowledge of the entrance. We proceeded with a boat to enter the river and land, which we found very populous, and the people much like the others, dressed with birds' feathers of divers colors. They came towards us joyfully, emitting very great shouts of admiration, showing us where, with the boat, it was safest to land. We ascended the said river into the land about half a league, where we saw a fine lake about three leagues in circuit, through which there were passing from shore to shore about thirty of their boats, with numbers of people who were crossing over to see us. In a moment, as often happens in navigating, a violent contrary wind from the sea blowing up, we were forced to return to the ship, leaving the said land with much regret, considering that from its convenience and pleasant aspect it could not but have some valuable quality, as all the hills there showed minerals.

10. Passing around Montauk point, the easterly extremity of Long Island, he would find a great contrast awaiting him, for whereas he had hitherto sailed along a sandy coast without rocks,

and, excepting New York, with only low hills in the distance, he now would find in front of him the rocky coast of Connecticut, and the outlying rocky islets known as Gull or Fisher's islands, while in the distance, on the right, he saw Block island, the only really detached island along our coast, from the Bahamas, near Florida, in latitude 26 deg. 30 min., to this island, in lat. 41. deg. 10 min. Some have considered that either Nantucket or Martha's Vineyard were here described, but there can be no doubt that these islands were not noticed by him as insular.

The "pleasant situation among steep hills, etc.," is probably the mouth of the Thames, which he reached, passing through the race between Fisher's and Gull islands. The tidal current through the race was observed by him and is alluded to here. The vessel was anchored in the roadstead behind Fisher's island, fearing to enter, and a strong southerly gale might well have induced his boat to return to the ship.

The distinct indication on the map of a large inlet, resembling Long Island sound, was put down while here. He may have explored it sufficiently to be satisfied that it was not a strait such as he was searching to discover.

11. Weighing anchor, we sailed eastward, as the land turned that way, running eighty leagues. [Ramusius says fifty.] We saw, always in sight of it* (*sempre a vista di quella discoprimmo*), an island of triangular form, distant ten leagues from the continent, in size like to the island of Rhodes, full of hills, covered with trees and thickly inhabited, [judging] from the series of fires which we saw them making all along the shore. We baptized it with the name of your illustrious mother [Louisa].

11. The fifty or eighty leagues is an overestimate, and the island he saw, and which was certainly Block island, must have been noticed before. It has no harbor, and the shores are gravel and sand cliffs, the interior being hilly, and at that time covered with trees, which may have made it appear higher.

* The punctuation may alter the sense here so as to read, "*running eighty leagues, always in sight of it*," i. e., the land; the island being discovered afterwards.

12. Not coming to anchor there on account of the contrary weather, we came to another land, distant fifteen leagues from the island. We found a very fine port, into the mouth of which we entered. We saw about twenty boats with people, who came with various cries and wonder around the ship, not approaching nearer than fifty paces, stopping to consider our build, our looks, and dress. Then they altogether sent up a loud shout, signifying pleasure. Reassuring them somewhat, and imitating their gestures, they came so near that we threw to them some bells and mirrors and many trinkets, which they took laughing, and carefully looking around the ship. * * * We struck up a great friendship with them, and the day after, we entered the port with the ship, we having been anchored a league out at sea on account of a contrary wind. * * * They came with a number of their boats to the ship, their faces painted and daubed with various colors, showing real signs of pleasure, bringing us some of their provisions, making signs where we should anchor in the port for the safety of the ship, keeping with us until we had dropped anchor, in which we stayed fifteen days, refreshing ourselves in many ways. * * * They would rest on an island a quarter of a league from us. * * * We, several times, went inland five or six leagues, finding it as pleasant as is possible to be described; all kinds of cultivation going on, corn, wine, and oil. There are spaces of twenty-five or thirty leagues of bare, open country, and devoid of any impediment of trees, of such fertility that any kind of seed in it would yield its utmost.

12. He entered Narragansett bay only fourteen miles from Block island, and at first he seems to have anchored at its mouth, but afterwards between Goat island and the present town of Newport. Throughout the letter we have refrained from criticising the notices of the natives, confining our remarks to geographical points only, but it would be impossible to describe the

inhabitants of these shores with such accidental precision, were the letter a mere fiction.

Dr. Miller, in the New York Hist. Coll., Vol. I, applied this description of Narragansett bay to the harbor of New York. Dr. Cogswell, in the New Series, Vol. I, of the same, corrected him, but we think erred in making the description of the Thames adapt itself to New York.

Our opinion, however, of the letter, in a geographical point of view, is that the navigator penned it in haste, and was more anxious to please the king, by a favorable report of the coasts explored, than to describe them correctly. The letter must not be strictly accepted as detailing all the courses sailed, and as describing all the harbors visited.

As he was here in April, he could not have found ripe fruit on the trees, but the Indians, as we know, laid in stores of dried fruit and nuts for the winter. The boats made from single logs, called *dug-outs*, are still made and used by the white people. The Indians used fire to hollow out their boats, applying the fire to a tree left standing, from which the bark had been removed a year beforehand. The fire could be easier managed on the upright log, so as to control the process, and make a neat finish. The broad-bladed paddle used by the two arms, without a rest, describes the Indian mode of rowing exactly.

The round Indian lodges, thatched with marsh flags, were not peculiar to these tribes. The pulse was the maize or Indian corn, of which they had several varieties, and as stated, the planting and the harvesting were preceded by various ceremonial observances.

The most remarkable omission in the description of the natives is that of the habit of smoking tobacco, which prevailed among them as far north as Maine.

13. This land is situated on the parallel of Rome, in $41\frac{1}{2}^{\circ}$, but somewhat colder by accident and not by nature, as I will relate to your Majesty elsewhere. Describing now the site of the said place [*posto*, query *porto*,] it looks towards the south, half a league wide, then entering, it extends to the east and north twelve leagues, where, widening, it forms a most ample basin, with a circuit of

twenty leagues, in which are five islets of much fertility, and pleasant, full of high and spreading trees, among which islands any number of fleets might remain without fear of storms or of any other chance obstacles. Turning towards the south, at the entrance of the port, there are, on both sides, gentle hills, with many channels that pour clear water from the hills into the sea. In the midst of the mouth [of the harbor], there is a reef (*scolio*) of free stone, of a kind fitted to build any kind of machine or fort for its production.

13. The latitude given here is nearly correct, the entrance of this bay being in latitude 41 deg. 27 min., which coupled with the notice that the harbor looks south, leaves hardly a doubt as to the identification of this position.

He was able, here, to observe the latitude at leisure, and repeatedly. With the instruments then used, the altitudes taken at sea were not trustworthy, being liable to an error of several degrees; but with a large wooden quadrant of some four feet radius, fitted with a plumb line, and on which the degrees were an inch long, it would be possible to read altitudes to within ten minutes. The rock is evidently meant for Goat island, which is admirably adapted to defend Newport harbor. This, it will be observed, was the only sheltered port into which he took his ship during the cruise. He was here from May first to sixteenth, new style.

14. Having refreshed ourselves at our leisure, we left the said port on the sixth day of May, following the shore, never losing sight of the land. We sailed 150 leagues, finding it of the same nature, and a little higher, with some mountains, which all showed minerals. We did not stop there for fear that the favorable weather might not last (*per la prosperita del tempo ne serviva*). Looking at the coast, we thought it was like the last.

14. Leaving Newport, his course was first east-south-east, and then northerly. The one hundred and fifty leagues include the fifty mentioned just after; in fact, the last paragraph is a general sketch of the land north of Cape Cod, which he was about to explore.

15. The shore ran to the east; in the space of fifty leagues, holding more to the north, we found a highland full of dense woods, the trees in which were pines, cypresses, and such like, which grow in cold regions. The people [were] quite different from the others, and in proportion as those before were gentle in behaviour, these were in roughness and appearance the more barbarous; so that no matter how many signals we made to them, we could hold no conversation with them. They were dressed in the skins of bears, wolves, marine lynx (*cervieri marini*, seals?), and other animals.

15. He passed around south of Martha's Vineyard and Nantucket, considering them as the main land, and must have been made cautious of danger by the tide rips and soundings on Nantucket shoals. These he indicates on the map as a long sand spit, which seems to be named *Cap Arenosus* on the map; and steering well clear of Cape Cod, he probably made Cape Ann and the rocky coast of Maine. The change of scenery and of the people are noted.

16. Twenty-five men went inland, against their [the natives] will, two or three leagues, and when they returned to the shore they shot at us with their bows, shouting loudly, and escaping into the woods. We found nothing of any value in the land, except immense forests, with some hills. They may have some metals, as we saw many of them with copper (*rame*) rings in their ears.

16. It is uncertain where this landing was made, but it was probably between Nahant and Cape Ann.

17. We departed, running along the coast between east and north, which we found more pleasant, open and bare of woods, with high mountains back in the land, sloping towards the shore of the sea. In [the space of] fifty leagues, we discovered thirty-two islands, all near to the continent, small, and of good appearance, following the outline of the land (*alte tenendo la verzura della terra*), from which were formed the most beautiful ports and

canals, as they do near Illyria and Dalmatia, in the Adriatic sea. We had no intercourse with the people, but supposed them to be, in their customs and nature, like to those we had left.

17. The distant mountains may well have been the White Mountains in New Hampshire, which, on clear days, are visible from the sea, and would at this season still be covered with snow. His remark that there are no mountains near the coast is a correct one.

The rocky islets of the coast of Maine, which he so well compares to those on the Illyrian coast, prove that he had really been here, for no map of the time could have suggested this feature.

18. Sailing between east and north for the space of 150 leagues, and having already consumed all our naval stores and victuals; having discovered 502 leagues, that is 700 more of new land, supplying ourselves with water and wood, we determined to return to France.

18. In the appendix, he gives his departure from the coast as in latitude 50 deg., which would imply that he visited the east coast of Newfoundland. This we doubt, as he merely wished to connect his own coastwise explorations with the well-known Terra de Bretones and Terra Nova, and would hardly extend his voyage to points frequented by the Portuguese and Spaniards.

His map shows no trace of the Bay of Fundy, and he does not describe any point, towards the close of his coasting, that can be identified. It is probable that he turned away in about latitude 44 deg., being confident, from the easterly trend of the coast, that he had traced the continental barrier to a point already visited. The map shows a large river estuary, which is, perhaps, the Penobscot, whence he started homewards. He may have sighted Cape Sable, but probably missed it by having taken an E. S. E. course from the point of his departure. His estimate of 500 leagues of new discovery is nearly correct, if we assume that he struck the coast in latitude 39 deg. 30 min., and left it in latitude 44 deg.

His own estimate of the length of a degree is $62\frac{1}{2}$ Italian miles, and he coasted, from our estimate below, some 540 geographical miles. His expression "500, that is 700 leagues," is explained in

the appendix, where he says that he made 300 leagues in latitude (about five degrees), and 400 in longitude.

He could, as we believe, not have coasted an extent of more than five degrees of latitude, and about six degrees of longitude. The dates appear to be as follows, old style:

January 17th, leaves the Desiertas.

March 6th, reaches land.

March 15th, probably reaches New York harbor.

April 21st to May 6th, in Newport harbor.

May 6th to 20th, probably coasting.

July 8th, arrives at Dieppe; twenty-eight days voyage.

Upon an attentive examination of the courses and distances sailed, some of which are given twice, we come to about the same result as his own.

1. From landfall, coasts south.....	50 leagues.
2. Coasts north to New York, say.....	100 "
3. Thence east and north to Thames R	100 "
4. To Newport (overestimate?).....	80 "
5. Newport to Cape Ann.....	150 "
6. North-east.....	150 "
	<hr/>
	580
	<hr/>

§. The navigator must have meant to use the term miles of $62\frac{1}{2}$ to a degree, for he would otherwise quadruple the true distances.

In the case of the third course and of part of the fifth, he certainly repeats himself. His estimates must be mere guesses in round numbers.

A measurement from a U. S. Coast Survey chart of the coast, dated 1864, gives the following result:

Latitude 39 deg. 05 min. to New York.....	90 miles.
New York to Montauk point.....	110 "
Thence to Thames and Newport.....	60 "
Newport to Cape Ann	170 "
Cape Ann to Penobscot river	110 "
	<hr/>
	540 miles.
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Old navigators were very prone to exaggerate the distances sailed. See instances quoted by Humboldt, *Essamen Critique*, V. 161, who says that the direction is more important than the distance.

LETTER AND MAP COMPARED.

With the aid of the map newly discovered, we can follow Verrazano's track along our shores with some confidence.

First, the Jersey coast is shown trending too much to the N. E., but the variation of the compass to the westward would cause it to appear so to him. Then the harbor of New York shown as a river only, because he probably did not penetrate far into it. Next the Long Island coast, correctly shown, inclining more to the eastward, with the interesting and correctly-indicated feature of a sound behind it. He passes Fisher's island, which he seems to have supposed to be connected with Point Judith, of the mainland, just east of it, which appear on his map as a promontory, beyond which he places Narragansett bay, with his *I. Luisa*, or Block island, off its mouth.

The E. S. E. trend of the coast from that point on his map is due, as observed before, to his having taken Martha's Vineyard and Nantucket as part of the mainland. The long sand-bar to the east of this is a rough draught of Nantucket shoals, or Cape Cod, as they presented themselves to him.

It will be noticed that the parallels of latitude on the map are very different from the observations recorded in the letter. These parallels are all full five degrees too much to the south of their proper position. Hieronimus, who made the map, must have committed this mistake, and we can offer no explanation to account for the discrepancy. On the charts of those times, we do not expect that the longitude can be more than guessed at, but the latitude is generally within much narrower limits of error.

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Columbus, also, was very wrong in his data for the latitude of the island of Cuba, and does not seem to have ever corrected himself. Perhaps the latitudes on *this* map were made expressly incorrect in order to mislead the uninitiated, or in order to avoid appearing to encroach on the Spanish discoveries, which, under Matienzo and Ayllon, had been carried, in 1520, to lat. 34°. Giovanni was, no doubt, aware of the fact that the Spaniards had reached this altitude before his voyage hither, and Hieronimus in 1529 had, perhaps heard that lat. 37° had been reached by Ayllon in 1526.

Perhaps the indication of a western sea, separated by an isthmus from the Atlantic ocean, appearing on maps after 1529 as *Mar de Verrazano*, was an attempt to place the great *Baia de Santa Maria* (Chesapeake bay) on his chart, thus giving to Nova Gallia the appearance of a land distinct from the Florida of the Spaniards. This would account for the absence of all mention of it in Giovanni's letter of 1524.

For some remarks on the cosmographical portion of the letter, we must refer to the notes at the end of this paper.

HIS OCCUPATIONS AFTER THE VOYAGE TO AMERICA.

After the dispatch of the letter to the king, we learn from Carli that Verrazano was expected at Lyons, where he may have gone to report in person to the king, but there is no mention of his appearance there. Afterwards we almost lose sight of the adventurous explorer, who offered to the French monarch a vast province in a temperate latitude, on which France might well have concentrated her enterprise, and which would have repaid her a hundred-fold as a colony, and as a school for her maritime forces. But at that time, France was nearer annihilation than during her recent struggle with Germany, and all thought of colonization beyond the seas was out of the question. The king was a prisoner in the hands of the emperor, his army had been dispersed, his treasury

emptied, and the prospect was such that without help from abroad France would have become a province of the empire. England, at this juncture, lent her assistance to her distracted neighbor in her traditional form, a loan of money. As Mr. Biddle well suggests,* Verrazano, finding no response to his offers to make further explorations, may have laid before Henry the Eighth his newly made discovery, for we find Hakluyt, in 1582,† saying that "John Verazanus, which had been thrise on that coast, in an old excellent mappe which he gave to King Henrie the eight, and is yet in the custodie of master Locke, doth so lay it out as it is to bee seene in the mappe annexed to the end of this boke, beeing made according to Verazanus plat." Hakluyt is advocating a renewed search for a north-west passage to China, and colonization of the coasts visited by Verrazano. His statement that he had been thrice on that coast is probably taken from Sir Humphrey Gilbert's little treatise of 1566, ‡ published in 1576, who only says, Cap. X, "Also divers have offered the like unto the Frenche king, who hath sent two or three times to have discovered the same," meaning the north-west passage. Gilbert was, no doubt, familiar with the work of Ramusius, and names Verarsannus, a Florentine, several times, though in one case (Cap. III, § 7), the name of Cartier is intended. In a paragraph just before this, he states that "Jacobus Cartier made two voyages into those partes." He does not seem to have been acquainted with Roberval's voyage, so that he evidently meant to include Cartier's voyages of 1534 and 1536 in his expression above quoted.

Hakluyt has left another notice of the "*excellent Mappe*," contained in an unpublished manuscript belonging to Sir Thomas Phillips, and which this gentleman has kindly allowed to be copied for the Maine Historical

* Biddle's *Cabot*, 1881, p. 276.

† *Divers Voyages*, Epist. dedic.

‡ *A discourse of a Discoverie for a new passage to Cataia*; London, 1576, 4th. This rare tract is given in Hakluyt.

Society. This manuscript will be published at an early date, with notes; but, meanwhile, in the first volume that was prepared for this society by Dr. Kohl, we find an extract from it, added to a foot-note at page 291, by the late Gov. Willis, who edited the volume. This manuscript, prepared in 1584 for Sir Walter Raleigh, and covering over sixty-two large folio pages, makes, in Chap. 17, §§ 10, 11, an interesting reference to "*a mightie large olde mappe in parchmente, made, as it should seme, by Verrazanus, now in the custodie of Mr. Michael Locke,*" and also to "*an olde excellent globe in the Queene's privie gallery at Westm'r, w'ch also seemeth to be of Verrazanus makinge.*"

It will be observed that in neither of these passages from Hakluyt is the map positively said to have been made by John Verrazanus, but that it was derived from him, and that it seemed to be of his make. This careful absence of an assertion that it was by John, was, no doubt, owing to the name "*Hieronimus de Verrazano faciebat,*" appearing on it. Hakluyt could not probably explain this difference of name, and therefore makes a carefully-guarded statement concerning it.

He describes, however, the map now preserved in Rome in these few words so exactly that we are led to suppose that it was the very one that was presented to the English king about 1529, and still to be seen in the queen's gallery in 1584. Sebastian Cabot's great mapamundi of 1544 was also in this gallery, and we should be rejoiced to find in some old document a list merely of the maps that hung there.

That Verrazano may have made a proposal for discovery to the English king is possible, but there is not a scrap of evidence to prove it, excepting Hakluyt's assertion above quoted. If he made such an offer, it was not for the sake of emolument, for he seems to have been provided with ample funds, as we have just shown, and as might be expected after the rich captures he had made.

In 1526, or perhaps later, his name is included as the commander or pilot of a squadron of three vessels fitting out, apparently for a mercantile venture, but in reality for another cruise in Spanish waters. We find proof of this in a document discovered and quoted by the indefatigable Mons. Margry, in his *Navigations Françaises, etc.*, Paris, 1867, p. 194, and given in a partly abridged and translated form in the notes to this paper.

This document is an agreement for a voyage to the Indies for spices, including prospective predatory captures, which last were, no doubt, the chief incentives to the enterprise. Nothing is said about discovery, or the search for a western route to the Moluccas.

The agreement is made between Philippe Chabot, admiral of France, Preudhomme, the general of Normandy, several merchants, among whom is the notable and famous Jean Ango, and "messire Jehan de Varesam, principale pilote."

This was indeed a partnership of distinguished men; two royal officers of high rank, three rich merchants, and a pilot who is able to venture a sum equal to that of Jean Ango, the great merchant-prince of Dieppe. There can be but little doubt that this pilot was our successful corsair, who must have reaped a fair share of the prize taken from the Spaniards. The paper, unluckily, is not dated, but, as Mons. Margry remarks, it must be posterior to 1525, as Chabot was not appointed admiral of France until 1526.*

The enterprise was hardly meant to be a purely commercial one, when the character of three of the partners is taken into account. Commanded and guided by a successful corsair, who five years before, had captured most valuable prizes from the Spaniards and Portuguese, and who, three years before, had taken the spoils of

* His appointment, according to Père Anselme, Vol. IV, p. 571, dates from the 23d of March, 1525. As the legal year began March 25th, he was really appointed in 1526.

Mexico when just about to be laid at the emperor's feet, it is not likely that he should be contented with a distant and uncertain trip to the Spice islands.* This new venture was, no doubt, to be another corsairial one, and the paragraph of the agreement which alludes to possible prizes to be taken, and which we give in full, explains the *animus* of the undertaking.

Giovanni de Verrazano was therefore alive and prosperous in 1526. That the French were able to fit out vessels in spite of the national distress, we have sufficient proof. But a slight impression could have been made on the towns of the Atlantic coast by the war with the emperor in Italy. The armies were small, the French Mediterranean fleets were fitted out on the southern coasts, and only the people along the line of march of the armies could have suffered much.

Whether this voyage was undertaken, and if so, what happened during the course of it, is unknown. If the vessels reached the East Indies, they would have been absent two years. Perhaps a careful study of the planisphere of 1529, as recording what was then known about the south-eastern regions of Asia, might throw some light on the question whether Verrazano was there in person. A cursory study of it will show that it contains some discoveries of the Portuguese, then recently made; but these may have been copied from charts taken from prizes, and do not prove anything.

If the execution of our navigator took place in 1527, † and the late Buckingham Smith stated to the president of our society that he had proofs to that effect, which are shortly to be published, it is possible that Verrazano was captured while on this cruise. His previous success may

* See notes, *Admiral Chabot*; also *Buckingham Smith*.

† See Transactions of this Society for 1871, p. 82. Also the Rev. B. F. De Costa's "Northmen in Maine," etc., 1870, p. 61, note, who states, on Mr. Smith's information, that the execution took place at El Pico, in New Castile, in October, 1527.

have led to the fitting out of the armament above described, the mention of the East Indies in the agreement having been inserted in order to conceal the real objects of the enterprise.

The uncertainty that hangs over his death, both as to its manner and date, may be cleared up, but at present his name disappears from history after the proposed voyage to the East Indies.

Ramusius, in the preface to the letter of 1524, states simply that on the last voyage which he made, naming no time or locality, he was taken by "*those people*" when landing with some companions, and was roasted and eaten in the presence of those who had remained on the ship. Having just spoken of his voyage to Florida, Ramusius, no doubt, meant by "*those people*," American savages, who however, never killed and eat captives unless they were prisoners of war. Supposing, however, that the story came to his ears in that form, whence or from whom did he derive it?

Ramusius was in correspondence with Oviedo, the Spanish historian of the Indies, and may have learned the story from him, as we shall presently show, though Oviedo could hardly have told it as having happened to Verrazano. Ramusius himself, as we suppose, inserted the Italian navigator's name as the victim of the butchery.

In order to understand clearly what we are to believe, it will be well to say that no exploring voyage to the American coast, between Terra Nova and Florida, is known to have been made between the years 1524 and 1534, excepting the Spanish ones of Estevan Gomez, in 1525, and of Ayllon, in 1526, and one by John Rut, or Root, sent out in 1527 by Henry the Eighth. The French, most certainly, did not undertake one, and the above are the only ones of which there is any record.

The voyage of Gomez, who explored the coast from Bacalaos to Cuba, was planned in 1523, but was delayed until 1525 by his having to attend the Council of Bajadoz,

and it was then possibly hastened by the report that the French had undertaken a similar one. Ayllon's voyage was made northwards from the West Indies, and is fully described by Oviedo; but he certainly did not get further north than Cape Fear, in north lat. 34°.

The English voyage to which we have alluded was made in 1527, but very little is known about it. It appears to have been an attempt to accomplish the discovery of a north-west passage by some strait north of Newfoundland, and like all others before and since, it failed in its object. It is not certain at whose instance it was undertaken, Hakluyt giving Robert Thorne, an English merchant trading in Seville, as its projector,* while Biddle hints at the possibility of its having originated with Verrazano. † If he sailed for the East Indies about this time, he could not have been in England to propose such an expedition. We find, however, that a certain learned Italian, Albert de Prato, was with the expedition, and it is possible that he was the active agent who induced the English monarch to send it forth. De Prato was a Florentine, perhaps a friend or agent of Verrazano's, who may have supplied him with the arguments to lay before the king in favor of the enterprise. Jerome, the author of the map before us, may have accompanied him to England to forward the views of his relative, but all this is mere conjecture.

Hakluyt, in 1582, and in his later works, speaks of an expedition of 1527, about which he could ascertain but very little. ‡

Samuel Purchas, in Vol. III of his "*Pilgrimes*," 1625, p. 809, has a letter, written from Newfoundland, August 3d, 1527, and some authentic details concerning this voyage, made nearly a century before. We learn that its commander was John Rut; that two vessels, the *Mary* of Guilford and the *Samson*, were under his command, and

* See note, *Voyage of 1527*.

† Biddle, *Cabot*, p. 276.

‡ See note, *Voyage of 1527*, and *Hakluyt*, on same.

that they sailed from Plymouth June 10th, and attempted to pass to the north of Newfoundland. The *Samson* parted company in a storm, and was not heard of again, while the *Mary*, two days afterwards, on the third of July, met with ice, and, giving up the main purpose of the voyage, put into St. Johns, Newfoundland. Here Rut addressed a letter, dated August 3d, to the king, accompanied by one from Albert de Prato to Cardinal Wolsey. Purchas, unluckily, does not give this last one, and the originals of both have disappeared. Rut declares his purpose to reach certain islands, to which he has been ordered, whether the Moluccas or West Indies is uncertain. Purchas says nothing about the return of Rut, but Hakluyt, in his work of 1589, informs us that he had heard that he reached home in October.

This is all that is positively known about this voyage, from English sources, but we find in two Spanish authors a notice of the visit of an English corsair to the West Indies in this year, whose commander gave such an account of his adventures that, as first suggested by Mr. Biddle in 1831, we must believe the vessel to have been the *Mary of Guilford*.*

The story was told by the English commander to a certain Ginez Navarro, captain of a caravel in the harbor of San Juan (Portorico), in November, 1527, and it agrees well with the details recounted in the letter of August 3d, but has the additional mention of the death of his pilot. This, he said, had happened between Newfoundland and Rio Chicora † (Savannah R). The pilot, a Piedmontese, had landed to speak to the Indians, who had killed him. His name is not given, nor is it said that he was roasted and eaten, together with those who landed with him.

Mr. Biddle, ‡ with much ingenuity, placing the above

* See note, *Oviedo and Herrera on the English vessel of 1537*.

† This name was given by Ayllon in 1520.

‡ Biddle, *Cabot*, Chaps. IX, XIV.

facts together, concludes that the Piedmontese pilot was Verrazano, thus confirming the account by Ramusius, and giving its true date. It will be noticed that the name of Verrazano is nowhere associated with this voyage, and that Mr. Biddle's conjecture is founded on the fact related to Navarro that the pilot was a Piedmontese, and that his fate was somewhat similar to the one recounted by Ramusius as having happened to our navigator.

From this theory, plausible as it may appear, we must dissent, for the following reasons: Verrazano was a person of too much consequence, supposing him to have been the pilot of the expedition, to have remained without mention in Rut's letter. Neither was his name recorded in De Prato's letter, else Purchas would have quoted it, for it was familiar to the author of the "*Pilgrimes*," and he would have eagerly published the fact.

Again, had Verrazano been with Capt. John Rut, it is not probable that he would consent to repeat his exploration of our coast while the north-west passage remained to be attempted. This would have converted an enterprise which had a noble object into a mere trading voyage, while we know that Verrazano's favorite idea was the discovery of a short sea-way to the Moluccas. He had, to be sure, proposed colonization to the French king, but Rut seems to have had no such instructions. As Navarro relates, he wished to reach the territory of the Grand Khan, but was easily turned aside from his purpose, and sought a market for his wares in the West Indies.

Verrazano, further, was the very last person to have consented to a West India voyage only, for his name was in every Spaniard's mouth as having captured several of their treasure-ships, and he would not have deliberately put his head into the lion's mouth.

If Rut did lose his pilot in the manner told by Rut, it may well have been Albert de Prato who was killed. We know nothing about this Florentine, but he appears to have been the companion and associate of Rut, no doubt

his pilot, as sailing masters were then called, and he was probably in possession of a chart of the exploration of 1524. Ignorant of the savage nature of the tribes inhabiting the coasts of Maine, who appear to have been made more hostile by the French fishing vessels, who from an early day frequented those coasts, he may have been massacred on attempting to land among them. Verrazano knew their nature better, and would not have exposed himself to such risks.

The stubborn fact, however, remains that Ramusius should himself have ascribed such a fate to Verrazano. The Italian historian may have, perhaps, learned from Oviedo, that the Italian pilot of an English vessel was killed on our coast, and thus supposed the victim to have been Verrazano.

Oviedo, however, in his account of the visit of the English vessel, as quoted in the appendix, does not say a word about the death of its pilot, and has it that the vessel came from Brazil. It is however certain that it was the same vessel which is mentioned by Herrera, from the attendant circumstances being described exactly as told by Navarro. Oviedo places the visit in the year 1527, while Herrera erroneously puts it in 1519.*

As alcade or commander of the fort of the city of Santo Domingo after 1533, which had fired on the Englishman, he must have gathered many details on the spot, though his account is less full than Navarro's report, which was first published by Herrera in 1601, and which Ramusius, probably, never saw.

It might be suggested that the Italian historian was also a correspondent of the veteran navigator, Sebastian Cabot, and learned the story from him. But Cabot was engaged from 1525 to 1531 on his expedition to the *La Plata* river. He may have heard of the voyage of Rut

* The Rev. B. F. De Costa dissents from this supposition, but he had not seen the account in Oviedo. See *Northmen in Maine*, p. 54.

afterwards, and of the death of his pilot, and learned his name. * Had it been Verrazano, and had he written to that effect to Ramusius, he would have added some authentic facts, which the latter would have recorded, leaving no uncertainty as to the date of his disappearance.

One more remark, and we close this part of our subject. If Verrazano had lost his life after his capture by the Spaniards or in the manner suggested by Ramusius, it would seem remarkable to find no allusion to his death on the planisphere of 1529. This map contains several legends on the American coast relating to him, and if he had died meanwhile, they would have been, no doubt, differently worded ; or if he had been killed on that coast, Hieronimus would have added a legend to that effect. The voyage of 1527 was so recent that the mapmaker could have easily ascertained from Rut or his companions the precise locality where the scene had occurred.

From a consideration of all the above data, we must conclude that if Verrazano lost his life on our coast, it was not on the voyage made by the *Mary* of Guilford in 1527. Ramusius may be right in his account of it, but then it must have happened at a later date, which is possible, although no record has been preserved of voyages hither, by exploring vessels of any nationality, until 1534, when Jacques Cartier sailed around the Gulf of St. Lawrence, and in 1536 wintered on the river of the same name, near Quebec.

After the positively authentic appearance of Verrazano as a subscriber to the French expedition to the East Indies, and as its chief pilot, we lose sight of the Florentine completely. He may have died in the course of it, if it ever left the shores of France, but all speculations as to his occupations after this must be mere guesses,

* A tale was told in Spain, concerning Cabot himself, somewhat similar to this one, namely, that he had been killed in a conflict with the natives, for which see Biddle's *Cabot*, p. 167.

though future researches may bring to light, as in the case of Sebastian Cabot and Jean Alfonse, some papers that might help to clear up the doubts which now surround his career. His name appears but once after the year 1526, and then in such a manner that no satisfactory inference can be drawn from it.

Tiraboschi, the author of a most valuable history of Italian literature, who was the first, as before stated, to draw attention to the Strozzi manuscript, also referred to a letter, printed in 1581,* among the collection of the epistles of Annibal Caro, as having a reference to Giovanni di Verrazano.

This, the seventh of the collection, is dated from Castro, October 13th, 1537, and is addressed to the inmates of the household of Mgr. Giovanni Gaddi at Rome, Caro being at that time the secretary of the Cardinal, and already distinguished for his literary and artistic tastes. It is written in a playful vein, and is of considerable length, describing the little journey he was making, in humorous terms. In the beginning, he speaks of having been left at home while his friends have gone to visit some caves, and to pass the time, he now addresses them, each in turn, in this epistle. The first one addressed is a Verrazano, in the following terms:

"To you, Verrazano, as a searcher (*cercatore*) of new worlds and of their wonders, I cannot yet tell anything worthy of your map, for we have passed no lands which have not already been discovered by you, or by your brother (*fratello*)."

The rest of the letter is meant to be amusing, but in the passage above quoted he is certainly addressing a real personage. Mr. Smith, in his *Inquiry*, assumes that

*The editions of 1572 and 1574, printed by Manucius in Venice, we have not seen. We quote from the one issued by the Giunti in Venice, Vol. I, pp. 6-9, entitled, "*De lettere familiari del Commendatore Annibal Caro. In Venetia, appresso Bernardo Giunti, e Fratelli, M.D.LXXXI.*" 2 vols. 8°, pp. 176 and 272.

Caro was at this time a tutor in the family of M. Gaddi, an opulent Florentine, and that he was addressing his pupils, and sportively referring to their studies. Annibal Caro was born in 1507, and coming of a poor but good family, he was compelled, after completing his studies, to become a tutor to the children of Ludovico Gaddi, in Florence. The cardinal, a brother of Ludovico, noticed him, and took him to Rome as his secretary. This was in or before 1537, consequently Caro was not addressing his pupils in Florence, but a household composed of men of considerable intelligence and learning. Hieronimus was, no doubt, one of the cardinal's protégés, and was, therefore, playfully addressed by Caro. It is hardly possible, now that we have the *mapamundi* of 1529 before us, to doubt but that the author was the *mapmaker* of the letter. The *fratello* may have been Giovanni, but, so far, no evidence to corroborate his being still alive in 1537 is known. Had he not been then in existence, however, the terms of the letter would probably have been differently worded.

In time, some proofs settling the vexed question of Verrazano's death may be discovered, but at the present time we know nothing that is convincing and satisfactory.

Verrazano was certainly alive in and after 1526, and was then only forty-six years old. He had been successful as a corsair, was an experienced navigator, and must have been a man of some mark and influence. Had he been captured and hanged, or had he met with the death described by Ramusius, the occurrence would certainly have been noted somewhere, and a document may yet be found, attesting the mode of his death, whether fortuitous or from natural causes. The discovery of this *mapamundi*, so long unknown, shows that we may yet hope to learn further details concerning the first explorer of our coasts. The land that can pride itself on having produced a Columbus, a Vespucci and a Verrazano, is no longer divided into petty states, rivals and jealous of

each others fame, but is a great and united empire. The memory of deeds done in the past by a Genoese or a Florentine, a Venetian or a Neapolitan, ought to be recorded as done by an Italian, and thus induce a more active inquiry into what is now obscure and neglected.

NOTES TO PAPER ON VERRAZANO.

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NOTES.

I.—BACALAO.

Numerous derivations have been suggested for this word, which is simply an old Mediterranean or Romance name, given to the preserved Codfish, when it has been dried and kept open and extended by the help of a small stick. This was the Stockfish of the North, and from the word *baculum*, it became the *Bacalao* and *Baccalieu* of the South of Europe. The *baculum* or rod was an attribute of the Gods Bacchus and Mercury, being perhaps a synonym of the first, in allusion to the rod supporting the grape-vine. Many words of Latin origin can be traced to this and the Greek *πάχος*.

Another root, the Sanscrit *cad* or *gad*, a stick, is found in the Greek and Latin name of this fish as *Gadus*. The English word *goad* shows the same root, and gives the English name Codfish.

The Holland word *Gabel*, a fork, Latin *gabalus*, is the root of the word *Cabelyau*, the Batavian name of the Codfish.

Other varieties of the dried Cod are known as *Dunfish*, because dried on the downs or *dunes*; *Klipfish* when dried on the cliffs or *klippen*: *Tusk* or *Torsk* when dried by the help of fire, from *dorren*, Norwegian to dry, past part. *gedorr*.

The French name *Morue*, for the Codfish, is of uncertain origin. It may be from *Mor*, a Gothic name for the sea, having the same root as *Mare*, *Mer*, etc. The French name for wet salted Cod is *Morue verte*, perhaps from its being procured from the *Isle Verte*, which is, as we believe, one of the earliest names given to Newfoundland, and may be found there still in the name *Banc au vert*, or green bank, South of the Island. We shall endeavor to show at another time that the Banks were visited for their fisheries, and were well known in the early part of the fifteenth century.

II.—EXPLORATIONS FOR A WESTERN STRAIT TO THE NORTH OF FLORIDA, UP TO THE YEAR 1527.

The early explorations of the Northmen from Greenland, and the fishing voyages of the Bretons and others, were not made in search of a strait, and are not here noticed.

1476. *Johann von Kolno* or *Scolnus* said to have been sent by Christian II of Denmark, to search westward, and to have reached land west of Greenland.

1490–96. Bristol men attempt at various times to sail out westward, but find no land.

1497. *Sebastian Cabot* leaves Bristol in May, with one vessel; passes to the South of Isle Verte or Bacalaos, and enters the gulf behind it June 24th, searching for a strait to the West; sails around the gulf, passing out through the Strait of Belleisle, and reaches home about August 10.

1498. *Cabot* is said to have made another voyage with uncertain results. Probably coasted north of lat. 52 deg.

1500. *Juan Dornelos*, said to have been sent from Spain to explore to the Northwest.

1500. *Gaspar Cortereal* leaves Lisbon with one or two vessels, in May, and sails North of Bacalhaos to Labrador, but does not land there, being absent about five months.

1501. *Gaspar* leaves again, May 15th, with three vessels and lands in Labrador. He is lost, but the other two vessels reach home about the middle of October, bringing seventy of the natives.

1501. An English expedition said to have visited Terra Nova, guided by Portuguese.

1502. *Miguel Cortereal*, brother of Gaspar, leaves May 10th with one vessel for Bacalhaos, and is not again heard of.

1503. Two vessels said to have been sent to search for the Cortereals, which perhaps survey the coast from Cabo Raso to Bonavista.

1504–6. *Jean Denis* leaves Honfleur with *Gamart* of Rouen as pilot, and explores the Island of Newfoundland, North of Bonavista.

1508. *Thomas Aubert*, of Dieppe, in the *Pensee*, visits Newfoundland.

1512. *Juan de Agramonte*, commissioned by Queen Juana of Castile, to explore to the Northwest, with two Breton pilots.

1524. *Giovanni di Verrazano*, in the employ of Francis the First, after an unsuccessful attempt in 1522, leaves Madeira January 17th with one vessel, sights the New Jersey coast of the United States, and explores these shores from lat. 39 deg. to 44 deg., and reaches Dieppe July 4th.

1525. *Estevan Gomes*, a Portuguese in Spanish employ, leaves Corunna with one vessel, traces the American coast from North to South, from lat. 44 to 34, and reaches Corunna in December, bringing home a number of the natives.

1526. *Nicolas Don* (D'aunis?), a Breton fisherman, is driven by gales Southwest from Cape Breton, and believing that he has discovered new coasts, offers to explore them for the Emperor.

1527. *John Rut*, with *Albert de Prato* as pilot and cosmographer, leaves the Thames, May 20th, with two vessels, the *Mary of Guilford* and the *Samson*, to search for a strait westward. The *Samson* is lost in June, and her consort puts into St. Johns, Newfoundland, where they found Norman, Breton and Portuguese fishing vessels, and then coasted to Florida, visited Hispaniola and Porto Rico, reaching home in October.

III.—EXPLORATIONS OF THE ATLANTIC COAST OF FLORIDA, FROM THE SOUTH, 1510–1526.

1510 or before. Terra or Isla de Bimini (Bahama or perhaps Florida) discovered.

1513. Juan Ponce de Leon, with the pilot Alaminos, discovers the mainland of Florida, coasting its gulf shore to lat. 24 deg., and the Atlantic shore to near lat. 30 deg. On his return he has to stem the Gulf Stream, gets entangled among the Bahamas, and finds the pilot Diego Miruelo the elder exploring them.

1520. The Licentiate Lucas Vasquez de Ayllon, one of the Auditors of Hispaniola, sends two vessels from Puerto de Plata, on the North side of Cuba, to capture slaves along the coast of

Florida. One of his vessels said to have been commanded by Captain Jordan, with Diego Miruelo as pilot, the other by the pilot Pedro de Quejo. This last one reaches in lat. 34 deg., August 18, Cabo de Sta Elena (Cape Fear) and probably farther still.

In company with the last one of Ayllon's vessels there went a small vessel, sent by another of the Auditors, Juan Ortiz de Matienzo, under the pilot Fernando Sotil, for exploration, which went as far as lat. 34 deg. also.

1521. De Leon having a royal grant to colonize Bimini and Florida, makes an expedition with two vessels from St. Juan (Porto Rico).

1521. Ayllon said to have again sent two vessels to Chicora, which appear to have coasted as far as Bahia Santa Maria (Chesapeake Bay).

1523. June 26, Ayllon obtains a royal grant to colonize Chicora and other provinces, between 35 deg. and 37 deg., but delays acting under it.

1526. Ayllon takes the command of a large expedition, consisting of one large and three smaller vessels, with two boats, manned or carrying 500 men and 80 or 90 horses. Leaves Puerto de Plata with Pedro de Quejo as pilot, in middle of July. The larger vessel is lost entering the Rio Jordan (Cape Fear R.), winters at Guadalupe, some 40 or 50 leagues to the S. W. (Pedee R., Georgetown?). Ayllon died October 18, leaving his nephew Juan Ramirez as Governor. The dissensions that arose after his death and the many deaths from disease and cold, cause the abandonment of the enterprise, and 150 men only get back, the body of Ayllon being lost on the way by the foundering of one of the small vessels.

A careful and close analysis of the Maps of 1527 and 1529, of Hernando Colon and Diego Ribero, was published in 1860, by Dr. J. G. Kohl. The names on the Maps are compared by him with the known documents that illustrate their origin. We must refer to this able work for critical details which lie beyond the scope of this paper.

IV.—EXPLORATIONS FOR A STRAIT TO THE WESTWARD, IN THE CARIBBEAN SEA AND WITHIN THE TROPICS.

1492. Christopher Columbus, sailing westward, discovers islands, and reaches to Nuevitas on the north side of Cuba.

1493-96. Columbus sails on his second voyage, but only reaches the Isle of Pines on the south side of Cuba.

1498-1500. Columbus on his third voyage discovers the mainland of South America, near the Island of Trinidad, coasting to Margarita.

1499-1500. Alonzo de Hoyeda, with Juan de la Cosa and Americus Vesputius, touches S. America, and coasts it to lat. 3 deg. North.

Alonzo Nino and Christoval Guerra: uncertain as to point reached.

Vicente Yanez Pinzon reaches to lat. 8 deg. 20 min. South of the Equator, on the coast of S. America.

1500. Diego de Lepe searches South of Cape St. Augustine.

1500. Pedro Alvarez Cabral, with a Portuguese fleet, on his way to the East Indies, discovers the East coast of Brazil.

1500-1502. Rodrigo de Bastidas with Juan de la Cosa, coasts the mainland of S. America, to Cape San Blas on the isthmus.

1502-3. Hoyeda, with Juan de Vergara, follows the same coast to Curaçao.

1502-4. Columbus on his fourth voyage explores the coast of the Caribbean Sea from Guanaza and Ruatan Is. to near the Gulf of Darien.

1504-5. Juan de la Cosa visits the Gulf of Uraba.

1505. Hojeda visits the coast near Caquibacoa.

1506 or 7. Vicente Yanez Pinzon and Juan Diaz de Solis sail west from Hispaniola, and explore the coast of Yucatan, from Golfo Dulce to the Rio de Lagartos on the North shore.

1508-9. Pinzon and De Solis reach lat. 40 deg. S., on the coast of Brazil.

1511. Peter Martyr's map appears: the first Spanish one of the West Indies published up to that date. It contains all the West Indian discoveries up to the year 1508.

1513. De Balboa discovers the Mar del Sur.

1524. Gil Gonzales Davila sent from Hispaniola to search for a strait about Golfo Dulce.

V.—EXPLORATIONS IN THE GULF OF MEXICO.

Columbus on his first voyage in 1492 was steering along the parallel of 28 deg. directly for the coast of the United States, and if he had not turned to the Southwest, would have made land about Cape Carnaveral in Florida. On this voyage he explored part of the North coast of Cuba, which he believed to lie Northwest and Southeast.

On his second voyage in 1494 he sailed along the South coast of the same Island as far as the Isle of Pines. Here he paused and prepared a declaration, which he forced all his companions to sign, to the effect that Juana (as he called it) was a long peninsula jutting out from Asia.*

The Map which he presented to the Pope and to Rene of Lorraine about 1498, is now lost, but it was no doubt copied by Johann Ruysch in his *Mapamundi* attached to the Roman edition of Ptolemy of 1508. Much altered, it was copied by Hylacomilus as the *Tabula Terrae Novae* in the Strasburg Ptolemy of 1513. In this last Cuba appears twice, the St. Die geographer having inserted Isabella between the Cuban peninsula of Columbus and Espanola, its insular character being then recognized. Johann Schoner on a globe of 1520 has also a copy of the Columbus Map of 1498.

Of the names attached to the Cuban peninsula on these three sketches, which are a part of the hundreds, which Columbus gave to points on the coast,† we have identified nearly all, as names which were familiar to the discoverer from his Mediterranean experience. Thus we find names altered by copyists, but which can be recognized, such as *Fin de Apulia*, *Cabo del Gato*, *Cabo Melle*, *de Luoca*, *de Livorno*, *d' Arles*, *de Como*, *de Parma*, *d' Alicante*, etc.

* Navarrete. *Coleccion de los Viages*, &c., II, 148.

† See third voyage of Columbus.

It soon became known that Cuba was an Island, apparently from what Peter Martyr says, before 1500, though it was not circumnavigated officially until 1508, by order of Sebastian de Ocampo.

The last voyage of Columbus in 1502, completed the exploration of the shores of the Caribbean sea to Guanaja or Roatan I. Vincente Yanez Pinzon and Juan Diaz de Solis, on a voyage of adventure in 1507, sailed along the East coast of Yucatan from the Golfo Dulce to the Rio de Lagartos, and this last limit of northern exploration in this quarter is given on Peter Martyr's little Map of the West Indies, accompanying his first Ocean Decade of 1511.*

In 1513 (not 1512) Juan Ponce de Leon discovered Florida. Alaminos was his pilot, and together they coasted the Atlantic shores of it, to near the mouth of the present St. Johns river, in lat. $30\frac{1}{2}$ deg. The fair open channel, with the swift current running through it from the South, was observed by the pilot and used by him, as will be seen below.

Vasco Nunez de Balboa crossed the Isthmus and discovered the Mar del Sur in the same year last mentioned, and it would seem a natural supposition to have at once sought for a passage into it North of the Rio de Lagartos, but this was not done.

Francisco Hernandez de Cordova, February 8th, 1517, accompanied by the pilot Antonio de Alaminos, who as a boy had been with Columbus, and to Florida with De Leon, sailed west from Havannah and struck Cape Catoche; then coasted west and southwest to the Bahia de Malapelea in Campeachy, where the natives repulsed him and he turned back. He gave to Yucatan its present name, but considered it an Island. On his voyage home he landed in Florida.

In 1518, Juan de Grijalva, by order of Diego Velasquez, his uncle, the first Governor of Cuba, explored the coast with Alaminos, beginning with the Island of Cozumel, and ending apparently at Cabo Rosso in lat. 21 deg. 45 min. near Tampico.

He brought home a large amount of gold, and exciting accounts of a vast and rich empire in the interior of the land he

* See Martyr, Dec. II, Cap. 7; Herrera, Dec. I, Lib. VI, Cap. 17; Docum Ined, 1842, 501.

had discovered; and in the following year (1519) the famous Hernando Cortes, burning for its conquest, with Alaminos again as pilot, undertook the expedition which resulted in the subjugation of Mexico.

The first vessel despatched to Spain, with treasure, by Cortes from Vera Cruz, July 28, 1519, passed into the Atlantic through the Florida Channel. Alaminos, her pilot, the discoverer of this passage,* in 1518, was the first who led a vessel through it to Spain.

In the same year† Francisco de Garay, Governor of Jamaica, and the rival of Cortes, either in person or by his deputy Alonzo Alvarez de Pineda, ran along the coast to the Rio de Panuco or Palmas, in lat. 23 deg. 45 min.

In 1520 De Garay sent Diego de Camargo north, in the gulf, with three or four caravels, and the exploration of the coast appears to have been begun somewhere about Pensacola, so as to very nearly connect it with the Florida of Juan Ponce, and was carried westward to Panuco, if the Map and memoir that he presented to the Emperor can be trusted. (See Navarrete III, 147-8, and Martyr Dec. V, cap. L)

In 1523 De Garay went in person to the Rio Panuco, with Diego Meruelo the elder as his pilot.‡ It would appear, however, that De Garay's explorations remained unknown to Cortes, for in his letter to the Emperor of 1523, he is uncertain whether Mexico and Florida were joined together.

The short unexplored coast line, from Pensacola to Apalachicola, appears not to have been traced until the unfortunate Pamphilo de Narvaez landed on the coast of Florida in 1527,

* Herrera, Vol. I; Descripcion, p. 4; Barcia Ensayo, p. 164.

† Gomara II, cap. 25, says 1518, which is improbable. Pineda was one of the malcontents accompanying Cortes in 1518, and who conspired to abandon him. Two of them were sentenced to death; the pilot De Umbria to have his feet cut off; Pineda, another pilot, and his brother to receive two hundred lashes, etc. De Umbria seems to have remained after this in the service of Cortes, but Pineda got away and entered the service of De Garay.

‡ Diego Meruelo had been sent by Lucas Vasquez de Ayllon in 1520 to the Rio de Chicora, and, according to Barcia, lost his life there with Ayllon in 1526. His nephew, of the same name, went as stated, with Narvaez to Apalache.

and his pilot Diego Meruelo the younger had coasted in search of him, finding the land running East and West, thus positively connecting the above provinces. The exploration of the Gulf of Mexico was therefore spread over a period of twenty years, while it might have been accomplished in as many days. *

VI.—SEBASTIAN CABOT.

It is now certain that Sebastian Cabot never sailed along the coasts of the United States South of Nova Scotia. The English have often claimed that he did so in 1497 or 1498, and upon this shadowy basis founded a right of possession by discovery. Cabot himself never published any statement to the above effect, but his papers, which Hakluyt says were in the hands of a certain William Worthington, as late as 1582, are now lost. Had he made such an exploration, Hakluyt would not have been satisfied with the meagre parade of hearsay reports, on which he claims such discovery. A very important note by a friend of Cabot, given below, and published during his lifetime, is suppressed by Hakluyt, while he attaches weight to the perhaps ill understood report made by Cabot to Peter Martyr in 1515.†

Had Cabot really thus visited this coast, from Newfoundland to Florida, he would of course have been appealed to as an authority by the Congress of Bajadoz in 1524, of which he was a member when the question of searching for a strait about there was considered. His silence at that time is of itself conclusive on this point.

We have carefully investigated the older and the more recently published accounts of Cabot's voyage of 1497, and shown that his land-fall was Cape North on Cape Breton Island, that he got embayed in the Gulf of St. Lawrence, and came out of it through the straits of Belleisle, whence he sailed back direct to England.‡

* See Oscar Peschel's excellent resume on the discoveries in the Gulf of Mexico, *Zeitalter der Entdeckungen* 1858, Cap. 7.

† Martyr Dec. III, Lib. VI.

‡ Historical Magazine, New York, March, 1868.

Over-estimating the distances sailed inside the Gulf, he meant to inform Martyr that he had sailed West to the meridian of Cuba, and the good historian no doubt added that he had reached South to the Latitude of the straits of Gibraltar, misunderstanding the range of the voyage. That Cabot himself did not claim to have sailed so far South is also definitely proved by a passage hitherto neglected because unfavorable to the English claims in the preface to Richard Eden's *Decades*, 1556, sig. c. i.

"These regions are cauled Terra Florida and Regio Baccalearum or Bacchallaos of the which you may reade sumwhat in this booke in the vyage of the woorthy owlde man yet lyuing Sebastiane Cabote, in the vi. booke of the thyrd Decade. But Cabote touched only in the north corner and most barbarous parte hereof, from whense he was repulsed with Ice in the moneth of July."

Written under Cabot's own eye, and perhaps dictated by himself in order to rectify Martyr's misstatement of his claims, it would seem to set the question at rest most completely. Hakluyt in his passages, gathered after Cabot's death, to back the English claims, omits this distinct limitation of Cabot's discoveries, and even Richard Biddle, in 1831, does not seem to have observed it.

Cabot corresponded with Ramusius, and perhaps had corrected the statement made by Martyr, for in the *Somario* of Martyr's three first *Decades*, made and published by the Italian historian in 1534, it is not repeated. That Ramusius was aware of the real extent of Cabot's explorations is also evident from the Introductory "Discorso" to his third volume of 1556, written in 1553, while Cabot was still living, in which no mention is made of his explorations South of New France. Hakluyt, of course, did not notice these omissions, as they would have led to the plain inference that we here point out.

Cabot's own planisphere, of which but one copy, discovered in 1843 by Von Martius, is now known, preserved in the French National Library, shows distinctly his *Prima Vista* to be Cape North, and he places no other name of his own on this coast, excepting to the Island of St. John (Prince Edward's?), just west of the cape and inside the Gulf.

Verrazano was therefore the first one that we know to have sailed along our coast, and his name deserves to be attached to some prominent point of it.

VII.—ALONZO DE ZUAZO ON A STRAIT TO THE MOLUCCAS.

Although the following passage more directly belongs to another subject, we quote it to show how intelligent minds were at a certain period of time endeavoring to solve a problem which was not fully answered until Magellan's ship had circumnavigated the globe. It has but recently appeared in Spanish (Doc. Ined., 1864, p. 296), copied from the Archives of the Indies in Seville.

The Licentiate Alonzo de Zuazo, the legal adviser of the three Jeromite friars who were sent by the Regent, Cardinal Cisneros, in 1516, to Hispaniola to govern the West Indies, and who is best known as the mediator between Cortes and Narvaez, wrote to the Emperor, January 22d, 1518:

"In another matter there is a great mystery [*secreto*]. The concession of Pope Alexander is known; the partition of the world as if it were an orange between the King of Portugal and the grand parents of Your Majesty by certain imaginary lines which were not drawn, because although they sent certain pilots to mark a boundary and fix those lines at the points where they ought to be, as this was a division by longitudes, of which the pilots know nothing and practise nothing, they could not and knew not what to do with certainty, and therefore returned without accomplishing anything.

"While drawing the lines, I found that your Majesty was much wronged in the Tierras Firmes of Brasil. From Cape St. Augustine thirty leagues at best may belong to the King of Portugal, and he possesses more than two hundred, from which he yearly receives more than twenty thousand ducats in brasil [*wood*] and slaves. I, to make sure of it, sent a pilot at my cost to the said Cape, and I found that its position on the Maps was more than a hundred and thirty leagues too much to the East.*

"There is another mystery. In the East, Portugal possesses much which belongs to Your Majesty. The City of Malaca itself, which has 25000 inhabitants, belongs to you, as it would appear, from that Mapamundi which Americo caused to be printed, who went to those parts: the [same] which the Senor Infante† has in his chambers, in a circular form.

* The good Zuazo deceived himself on this point. See "*Die Theilung der Erde, &c.*," by Oscar Peschel, Leipzig, 1871. Bulletin de Geographie, and Kohl's text to *Die ältesten general karten von Amerika*, Weimar, 1860.

† The Spanish editors, in a note, say that this must have been Don Fernando, brother of Charles the Fifth and afterwards Emperor of Germany.

A printed Map of the world, compiled by Americus Vespuccius, is not now known. Zuazo may probably have seen a Map drawn by hand for or by Vespuccius.

"That Your Majesty may not mourn over this, as did Alexander to call himself master of other worlds, you must first order the division to be made: and secondly fit out two small fast sailing vessels to examine it all (meanwhile the strait which I have heard of in Tierra Firme may be verified, and Diego Alvitez, recently from there, has said it was so), and they can sail along the coast to the South,* or reach that which comes from the North (*hacerse en la Costa del Sur o llevarse a ella de la de Norte*) as Vasco Nunez has been doing."

VIII.—HERNANDO CORTES, AND HIS PROPOSAL, IN 1524, TO SEARCH FOR A STRAIT.

The letter, known as the fourth *carta-relacion*, sent by the Conqueror of Mexico to the Emperor, contains an interesting passage relating to a proposed search for *the strait*, between Florida and Bacalaos. From the date of the letter, October 15, 1524, it appears that Cortes had heard of the geographical congress met at Bajadoz, and wished to please the Emperor by causing explorations to be made in both oceans for it. A good version of the extract may be found in Biddle's Cabot, Chap. VII, copied by Conway Robinson, in his work, "An account of discoveries in the West until 1519, and of voyages to and along the Atlantic Coast of North America, from 1520 to 1573. Richmond, 1848," page 300.†

We give below an abridged version from the Spanish text in Gayangos.

"I have informed you in the earlier part of this letter of the parties sent by sea and by land, which I hope may meet with success, as I wish to serve your Majesty in every possible way. All that I see remaining to be done in that way is to learn the secret of the coast remaining to be discovered, between the Rio de Panuco [Lat. 23 deg. 45 min.] and La Florida,‡ which last was discovered by Juan Ponce de Leon; and thence along the North-

* Zuazo does not seem to have heard of the voyage of Juan Diaz de Solis in 1516 along the coast of South America.

† This work deserves wider circulation and notice. Robinson consulted many original authorities, and gives an admirable resumé of the subject.

‡ Cortes had not learned of the explorations of Alonzo de Pineda in 1519, and of Francisco de Garay in 1520, by which the Gulf Coast had been completely traced.

erly coasts of said Florida as far as the Bacallaos.* It is certain that along those coasts there is a strait that passes through to the South Sea. If found, it will be seen that it comes out very near to that archipelago which Magellan discovered,† according to a certain Map [figure] which I possess‡ of those parts. Should a strait be found about there, it would be of great value in reaching the Spice Islands by a route shorter than any other by two thirds, and also because it would pass through lands now owned by your Majesty. Although much in debt for the cost of the expeditions already sent out, and for the expenses of this Government, I have resolved to send three caravels and two brigantines out on this undertaking, but it will cost me over ten thousand gold pesos. This will be the greatest service of the kind I have done, if as I say the strait should be found, but even should none be met with, it must happen that many great and rich lands will be discovered, which will increase your Majesty's possessions.

"There is also a negative advantage in case no strait be found, in that your Majesty can then determine what measures will be best in regard to the use of the Spice Islands and lands adjacent to them. In such a case I offer my best services, which will cost your Majesty but little, in carrying out your orders. Please the Lord, the strait may be found, and I will do all I can towards that end.

"I mean to send the vessels on the South sea to explore the coast, simultaneously with those in the North sea.§ The first will follow the coast until they find the strait or connect the shore line with that discovered by Magellan, and the last until they come to the Bacallaos."

Cortes at this time conceived Nova Hispania to be a part of Asia, but by the year 1540 he had explored the coast so far North as to make it nearly certain that North America was a continent by itself.

Oviedo, Lib. xxxiii, Cap. xli, Ed. Acad. 1853, p. 456, remarks on this letter:

"I take Cortes to be better as a Captain, and more versed in warlike matters, such as we have been describing, than as an expert cosmographer, for all what he says; for the strait of Magellan is very far from the point he speaks of, and very far from being placed where Cortes, according to his

* Neither had he heard of Leon's and Ayllon's undertaking on the Atlantic coasts, which had reached to about 84 deg. N. Lat.

† Probably Magellan's I. de Ladrões (the Marianas?) or the Philippines. He could hardly mean the Desventuradas.

‡ No map by any of the companions of Magellan is now known. Their track was perhaps copied by Agnese, on Maps described in this Note.

§ It does not appear that Cortes sent out these last vessels. His explorations in the Pacific, actively pursued, do not bear on the subject.

say or his Map, which he says he has, wishes to make it, and there can be no doubt about this now" [1541].

Oviedo in this sneer displays much ignorance, for Cortes was speaking of an undiscovered strait that might be found in the North, and whose Westerly opening might not be far from the Philipines or Ladrones; a plausible conjecture, which the Map recently described by Prof. Peschel explains quite clearly.* This little Mapamundi, which is preserved in Munich, seems to be the work of Baptista Agnese, and a duplicate of it from Dresden, is given by Dr. Kohl (Maine, No. XIV), who had seen still another in the British Museum; this last one signed by Agnese and dated 1536. Another Map from the Bodleian Library, Oxford, given by Dr. Kohl (Maine, XV, c), drawn, perhaps, by Agnese also, shows a Northern strait between Terra de los Baccalaos and Terra de los Bretones, much as Cortes may have imagined it to be. § There is a small Mapamundi, which may best illustrate the geographical views of Cortes, prepared by Gaspar Vopellius, and inserted by Hieronimus Girava in his *Cosmographia*, which appeared in Spanish at Milan, 1556, and again at Venice in 1570. On this Map, in which *Nueva Espana* is joined to *India Oriental*, the *Malucas* are placed on the Equator, some forty degrees West of the longitude of Mexico, and close to the American coast, which is made to run almost East and West from Panama to the Ganges.

IX.—ESTEVEAN GOMEZ.

Estevan Gomez, a Portuguese pilot, entered the service of the King of Spain, offering to discover a western sea way to the Spice Islands, but Fernan Maghalhaens was preferred to the command of the expedition, with Gomez as his first officer. When half way through the Strait, Gomez, who had been made pilot of a vessel commanded by Alvaro de la Mesquita, abandoned the expedition, arrested Mesquita and returned to Spain. Pending the settlement of their dispute, the two were sent out in 1523 with a fleet fitted out to pursue the French corsairs. Later,

* *Italienische Weltkarte, etc., Leipzig, 1872.*

Gomez prevailed upon the Emperor to fit out a vessel for the discovery of a Strait North of Florida, between lata. 37 deg. and 44 deg. He was detained by having to attend the Geographical Congress of Bajadoz, appointed to determine the mutual claims of Spain and Portugal to the Moluccas, and also, it is said, by a remonstrance against his enterprise from the Portuguese King, who claimed Newfoundland as falling within the demarcation line of 1515. The Congress sat from March 1 to May 1, 1524, and perhaps longer. The commission to Gomez was not signed until February 10, 1525, and he probably sailed within a few days after that date, leaving Corunna with one vessel. No trustworthy account of his voyage has ever appeared. Spanish authors treat of it in general terms, and the *Tierra de Gomez* appears on Spanish Maps afterwards, but it is uncertain what extent of coast was explored. It appears that he searched it from Newfoundland to Florida, being absent ten months, returning in December, unsuccessful in the main object of his voyage.

A paper entitled "Hernando Magallanes and Estevan Gomez, pilots who sought a Western strait to India," was read June 5, 1866, before the New York Historical Society, by the late Buckingham Smith, which is briefly reported in the *Historical Magazine*, Vol. X, 1866, p. 229. Mr. Smith appears to have learned that a full account of the voyage was to be found in an unpublished work by the geographer Céspedes, who wrote near the close of the sixteenth century, containing full details of it, but was unsuccessful in finding it, nor had Munoz or Navarrete seen it.

Andres Garcia de Céspedes was the author of several geographical or mathematical works, enumerated by Leon y Pinelo in his *Epitome* of 1629, pp. 140, 148 and 184. One of these is entitled *Regimento de Navegacion que mando hazer et Reg. N. S. por orden de su Consejo real de las Indias*. Madrid, 1606, folio. This work does not contain the full voyage of Gomez. Another one, perhaps containing it, is his "*Isolario general*," in manuscript, present owner unknown.

X.—IDENTIFICATION OF JUAN FLORIN AS GIOVANNI DI VERRAZANO.

In the Spanish accounts of his exploits as a corsair, he is always called *Juan Florin* or *Florentin*. Peter Martyr first mentions him as *Florin*, in the sixth chapter of his eighth Decade, written 1525, but first printed in 1530. Though mention is often made of the French *pirates*, from the eighth chapter of the fifth Decade (written in 1521), to the end of the work, and especial stress is laid (Dec. VIII, cap. IX) on the safe arrival of the treasure ships at the end of July, 1525, guarded by the fleet sent out to convoy them, he omits any allusion to the capture of Juan Florin. Such a matter would hardly have escaped his notice, nor does he mention it in his letters.

These letters were first printed in 1530. The first notice of the leader of the pirates by name, is in one dated November 19, 1522, where he is simply called *Florinus*, a French pirate. In June, 1523, he speaks of *Joannis Florini*, the French pirate, and he is last mentioned by name in August, 1524, though the French pirates are spoken of later in the year.

All that can be negatively inferred concerning the capture of Florin, from Peter Martyr, is that in this last letter of November 18th his name does not appear.

Ramusius does not appear to have seen the full edition of the Decades, of 1530, nor the letters either, for in the Italian Somario of 1534, which, as Mons. Davesac* has recently shown, was prepared by him, he had only the three first Decades (as published in 1516 in Spain, in Basle in 1533, and Cologne 1574) before him. Nor does Ramusius appear ever to have seen these last five Decades. Had he seen them, he would perhaps have recognized Verrazano under the names which Peter Martyr uses, when speaking of him. The full editions of Martyr's Decades and Letters do not seem to have left Spain for many years, and were perhaps jealously guarded from general circulation for more than fifty years, since in 1574 but three Decades were reprinted, and not till Hakluyt published at Paris in 1587, the whole eight, do they seem to have been quoted by authors generally.

* Davesac. *Bull. de Géog.*, July, 1872, p. 10, note.

Oviedo does not, but Gomara does name Florin, and as a pirate his name does not appear in any published Spanish or other work until Herrera (Dec. III, Lib. IV, cap. XX), in 1601, speaks of him as *Florin de la Rochela*, captain of six armed vessels. In the same Decade (Lib. VI, cap. IX), he gives the voyage of Juan Verrazano Florentin, from Ramusius, without a suspicion that these names belonged to one person.

The next printed reference to him as a corsair, is in Bernal Diaz del Castillo, whose narrative of the Conquest of Mexico, written in 1568, was not printed until 1632. He calls him *Juan Florin* and *Florentin*, a French corsair, and gives the first published account of his capture and execution.

De Barcia, in his *Ensayo Cronologico de Florida*, 1723, was the first to identify the corsair with the discoverer. He calls him Juan Verrazano Florentin, Corsario de Francia, and gives a very brief notice of his exploring voyage, from Ramusius, and of his exploits under the name of Juan Florentin, alludes to the report of his death in America, and then gives the story of his capture and execution, apparently from Bernal Diaz.

Thus two centuries had elapsed before this identification was made, during all which period no one had even suspected it. The heading of his own letter, first published in 1556, might have awakened a surmise to this effect, and possibly the Spanish Government knew the truth, but it is curious that the fact should have been so slow in finding its way into print.

XI.—DECADES OF THE NEW WORLD, BY PETER MARTYR.

Translated Extracts from the Decades of Peter Martyr concerning French pirates.

Dec. V, Cap. 8 [1532; and written about the same time as his letter of November 19]. "Of these two" [hidalgos who had served under Cortes], "Benavides, leaving his companions, returned recently in one of the two ships sent by Cortes. In them gifts are brought, which are said to be far more precious and beautiful than those which came in the year when his Majesty went to Belgium, and seen by your Reverence. They estimate these

treasures to be worth about two hundred thousand ducats, but these ships have not yet reached us. They have stopped at the Cassiterides, called the Azore Islands by the Portuguese, the sovereigns thereof, to avoid falling into the hands of French pirates, as happened to one coming last year from Hispaniola and Cuba loaded with Gold of the weight of Seventy-two thousand ducats, of precious pearls six hundred eight ounce pounds, and two thousand arrobas of sugar. The Spanish arroba contains twenty-five six ounce pounds. Many brought individually much besides, all which became the booty of the pirates. An armed fleet has been sent, which is to bring these two safely from the Azores. These ships bring, as Benavides reports, three tigers.

Two gentlemen, captains in the wars in those countries, remain in charge of these ships, Alfonso de Avila and Antonio Quignones, carrying the gift to the King from the people, but the share of Cortes is entrusted to Juan Ribera, private Secretary of Cortes, and his companion in all his labors from the beginning. News has recently been brought that fifteen ships of the French pirates were seen cruising on the Ocean, expecting to lay hands upon these ships as they did with the other, but that they were driven by storms on the Coast of Africa, and that many of them were drowned."

Cap. X (1522)., "...but there is a rumor of uncertain origin, that the French pirates have already got scent of those ships; may God bring it out aright."

Dec. VI, Cap. X (1524). "The troubles of these times, due to the various pirates and the hostilities with the French King, have put a stop to our communications both by land and by sea."

Dec. VII, Cap. IV (1524). "They say that Cortes has 300,000 pesos ready to send to Cæsar....but learning of the capture of so many laden ships by the French pirates, hardly ventures to despatch these. Thus, while in our Council of the Indies, counsel was being held on the measures to be taken for the safety of these ships, it was resolved, and provided by Cæsar upon our petition,* and ordered that they should gather, as fast as each one was laden, at Hispaniola as a rendezvous. The ships being gathered from all those lands, a strong fleet would thus be formed,

* See Cortes de Valladolid.

which would be safe from the attack of pirates if they had to defend themselves. What fate is to befall the armament is to be determined by Divine Providence."

Cap. V (1524). "While I am writing of these things, word is brought that four ships from the Indies have arrived on our Spanish coasts. What treasures they bring we have not heard."

Dec. VIII, Cap. IV (1525). "They say that Cortes is still deploring the loss of those great treasures, captured by the French pirates about three [two?] years ago, which he was sending to Cæsar. But what shall we say concerning the gems and precious stones? Passing over the rest, there was a pyramidal emerald, whose base was nearly as broad as the palm of a man's hand. It was told to us in the Council and to Cæsar that such an one had never seen by human eye before. It is said that the French Admiral purchased it at an incredible price from the captor of this booty. But they treat Alfonso de Avila with inhumanity. He is a young man of noble family, but not rich. They keep him a prisoner in a foul dungeon, upon the sole pretext that to him were entrusted this jewel and the other treasures. They think that they can exact from him twenty thousand ducats if he wishes to ransom himself."

Cap. VI. "Cortes, by reason that the French pirate named Florinus, took his fleet with many precious things, which he and the other officers in New Spain, partners in his conquests, were sending to Cæsar, has from grief over so great a loss, sent no letters either to Cæsar or to our Council. He has thus allowed a suspicion to arise from this and from the sayings of many who frequently return from those Kingdoms, of a defection from Cæsar."

Dec. VIII, Cap. IX [writing about a large fleet bound to the West Indies, on which there went a retainer of his, Juan Mendeguren, he says, November, 1525], "From him I have received letters from Gomera, one of the Fortunate Islands, where all vessels crossing the Ocean stop for refreshments. He writes that they had got thus far prospering, in the space of ten days, and that fast ships could do it in less, but that it was the duty of the convoy to wait for the slow sailers, lest they should fall into the jaws of the French pirates, who watched them for some time

under sail, that they might fall upon the laggards. I do not remember whether I have said or not, that two ships sent by Fernando Cortes from New Spain, the latest new lands known to us, had arrived at the Azores. I will tell you how it was arranged that they should not fall into the wide spread jaws of the pirates, who had long waited for them cruising around, and how they avoided them and what they bring. One of them, having discharged her cargo, determined to try her luck, and by the help of Providence, did not fall among the robbers, escaping safely. This news being heard, a fleet of six ships was hastily prepared, of which four are two hundred tons burthen, and also two caravels completely equipped for fighting, in case they met with pirates. The King of Portugal added four others, good sailers and well furnished with all kinds of guns. They sailed on the 25th of June, took in the cargoes left behind, and returned safely about the end of July. Thanks were offered to God in Seville. We expect the chief captains every day. There were only two small ships from Cortes. They ascribe the little treasure in the ships to the poverty of those regions. They bring to Cæsar only seventy thousand gold pesos." [He gives the reasons for ordering the spice laden vessels from the East Indies to start and to land at Corunna, among which is the fear of pirates along the Southern coasts, for, as he says], "there are in those shores between the high mountains many desert valleys, which are not much peopled on account of their sterility. These are the hiding places of pirates, who signalled by their men watching on the top of the mountains, attack the passing ships. On this account it was ordered that business should be carried on there" (at Corunna).

• This Chapter is dated November 19th, 1525.

Martyr completed one more Chapter of this eighth Decade and died in October, 1526. There is some confusion in his accounts as given in the Decades, and they must be compared with his Letters in order to understand them. It will be noticed that in the Decades he only names Florinus once and that he says nothing about his capture.

XII.—LETTERS OF PETER MARTYR.

The letters of Peter Martyr cover a most interesting period of European history, namely, from 1488 to 1525. They are full of details which can be found nowhere else, and abound with gossip of all kinds. He wrote them in fluent but not very classic Latin, to persons in Italy or Spain, and often in haste, as he himself admits. We find in them many passages concerning the New World, taking, as he did, a vivid interest in the progressive discoveries made there. As a member of the Council of the Indies and as an attaché to the royal court he had opportunities of learning all that was happening there. He gathered these details into Decades, the first one, written before 1500, being published in 1511, two others appearing in 1516, and the whole eight in 1530, after his death, which occurred in 1526.

The letters, 812 in number, were first published at Alcalá in 1530, and again at Paris in 1670, but have not been translated.

In Ep. 634 (Paris Ed.), dated January 30th, 1519, he mentions treasures expected to arrive from islands near the Continent. This was the consignment of gold collected by Juan de Grijalva during his expedition to Yucatan and the lower Mexican coast in 1518. This was forwarded by Velasquez, Governor of Cuba, and got safely in to Seville.

In Ep. 650 (Paris Ed.), dated December 2d, 1519, he announces the arrival of the first treasure sent by Cortes.

In Ep. 686 (Paris Ed.), dated September 13th, 1520, he says that all Gold from the Indies must pass through the Casa de Contratacion, and in Ep. 715 (same ed.), of March 6th, 1521, he alludes to treasure expected, as he says, from the lands West of Cuba. Verrazano, a few weeks after this last date, took one or two vessels from the Indies according to Herrera, but they were not sent by Cortes.

The next four letters are full of details concerning the pirates and their captures.

Epist. 774 (Ed. 1530), 771 (Ed. 1670).

Valladolid, November 19, 1522.

"These vessels from Fernand Cortes the conqueror of the Yucatan and other newest lands, have arrived at the Cassi-

terides, Portuguese Islands, commonly called the Azores. Concerning the treasures thereof, but particularly the ornaments and vestments consecrated to their deities, and how far they differ from those sent by the same, and which you saw in Valladolid, they speak with great animation and say that those brought in one of the three ships exceed the former greatly in beauty and value.

The other two vessels, however, fearing the French corsairs, have remained at the said islands. They pretend to say that cargoes to the value of eight hundred thousand ducats are brought in them. There they will stay, consequently, until another fleet, which has been ordered to be fitted out, can be sent from Seville to convoy them, for we have been taught by a very bitter example, which ought to make us more vigilant, unless fortune blinds us.

For last year one Florin, a French pirate, captured a ship coming from Hispaniola with gold to the amount of eighty thousand ducats, six hundred eight ounce pounds of pearls and two thousand arrobas of sugar. As Commander of these three vessels came Juan Ribera, as private envoy of Fernan Cortes, who in the name of his Master, Fernan Cortes, is to present half of those gifts to Cæsar, and the other half is to be offered by the two representatives of the magistrates and soldiers of those lands in their name to Cæsar. These two are still with the ships.

Juan Ribera resolved to tempt fortune with one of the ships and came in. What he brought you shall learn elsewhere. He has not yet landed the cases he brought, which, however, are all his own, nothing for the King himself.

In the three ships they brought over three tigers, reared from whelps, each in his cage. By the violence of the storms, one of the cages was opened a little one night. By great exertion the tiger burst the planks asunder and attacked the men as fiercely as if it had never seen one. Five of those it met were badly wounded (each) by one blow. Their comrades, roused by the noise, disabled the quadruped with spears and drove it into the sea. To avoid the same happening again they shot the second one in its cage with darts. So they only bring one, which God grant may, with the other things, escape the jaws of the pirates, for they have become so greatly allured by that booty, by means

of which they have gathered fresh strength, that we can no longer safely navigate our ocean."

Epistle 782 (Ed. 1530), 779 (Ed. 1670).

Valladolid, June 11, 1523.

"This very day more bad news is brought. I have already written about three ships which Fernan Cortes sent with immense treasures from the most remote lands, two of which for fear of pirates stayed at the Cassiterides, the Azore islands, until a new fleet could be sent to convoy them. A little fleet of three caravels was sent for their protection, but in vain. The larger vessel laden with those precious things, attacked by two ships, fell into the hands of John Florin, the French pirate. The other ship escaped, with only one of the twelve large cases, and one of the tigers of which I have already spoken. These few thus escaped, immensely excel in richness and elegance of the dresses, the gifts seen by you, before the Emperor's departure from Valladolid to Galicia on his way to the Low Countries. And no wonder. Those came from tribes in the provinces, these were brought from the treasury of that great King Mutezuma, and the other grantees of his court and their famous temples. Those who had handled the articles aver that those lost by this mischance exceed in value 600,000 ducats. There was a large quantity of gold dust, and the robes dedicated to their Gods were richly trimmed with gold. I took the Venetian Ambassador* and several nobles to see them at the house of those who are taking care of this box, until it is presented to Cæsar. These enable us to judge of what was lost. They admired the beauty and richness, the designs wrought with wondrous skill, and figures intermingled with all kinds of flowers, plants, animals, snares and birds. They are a strong proof that these people are polished, of acute minds and industrious."

Ep. 804, Ed. 1530.

Ep. 800, Ed. 1670.

Valladolid, August 3d, 1524.

"To turn to other matters; a courier of the King of Portugal comes hither with the complaint, that Florinus the French pirate had captured a ship of his King, coming from the Indies, in

* See *Constantine*.

which the freight they brought was taken, amounting to a sum of one hundred and eighty thousand ducats of gums and spices."

Ep. 806, Ed. 1530.

Ep. 802, Ed. 1670.

Valladolid, November 18th, 1524.

"The sea is also hostile to us. Of the many carracks wrecked and damaged by storms you know most fully, for they were all Italian. Jacob de Veer, distinguished in Spain in your day, built one.

This fell into the hands of the French pirate, with a thousand five hundred bags of Spanish wool, and with other things which were going to the fairs of Belgium and Antwerp, amounting in value to seventy thousand ducats.

XIII.—CONTARINI ON THE FRENCH CORSAIRS.

The Venetian envoy in Spain, at this time, was the well-known Gaspar Contarini, and we find several allusions in his despatches home to the captures by the French corsairs. These papers are now in the Marciana (library) in Venice, bequeathed to it by one of his descendants, in 1843. Mr. Rawdon Brown, the able editor of several volumes of Calendars of Venetian State papers, relating to English affairs, pointed out these letters to Mr. Henri Harrisse, author of the *Biblioteca Americana Vetustissima*, 1866, and of other works showing great research. We give such extracts from them as bear upon the treasure of Cortes, from his Supplement to the work just mentioned, Paris, 1872.

The first extract, not dated, speaks of the new empire discovered by Cortes.

The second, from *Carte* 27, dated November 18, 1522 (one day previous to a similar one of Martyr's, both written after the arrival of Juan de Ribera), mentions the treasure, but says nothing about corsairs.

The third extract, from *Carte* 29, dated June 7, 1523, announces the capture of two out of three treasure-vessels by French vessels, and the escape of the third. He then adds: "His Majesty, here, has written to all his ports that as many as

possible should go out and pursue the said French vessels, and desires that half of the gold and vestments which may be recaptured should remain to them; for they hold that these French vessels cannot have yet reached a place of safety."

The other extracts are not dated, and speak of still richer treasures expected, etc.

XIV.—HERRERA'S DECADES.

Decade III, Lib. IV, Cap. XX, 1523. Alonzo Davila, Antonio de Quinones, Diego de Ordaz and Alonzo de Mendoza were waiting at Santa Maria, in the Azores, to be sent for, and, becoming tired of waiting, Diego de Ordaz resolved to come on with other passengers, in a Portuguese ship, and landed in Lisbon. Capt. Domingo Alonzo left the vessels bound to the Indies, that he was convoying, at the Canaries, and went to the Azores with his three caravels. Coming back to Spain with Davila, Quinones and their fellow passengers, with the gold and things they were in charge of, at ten leagues from Cape Saint Vincent, six armed French vessels came out against them,* whose captain was Florin of Rochelle. Of the three Spanish caravels, one took to flight, two prepared for battle, and, although they fought bravely, were captured. Antonio de Quinones was killed, and Alonzo Davila was carried to La Rochelle, whence those vessels came, and was a prisoner there for three years. Almost all the treasure was lost, which Cortez was sending to the King, not only as a present, but also his fifth, and a vessel, which was coming from Espanola, with sixty-two thousand ducats, six hundred marks of pearls, and two thousand arrobas of sugar.

Cap. XXI. The Emperor felt deeply the loss of the two caravels which the French captured, and of the ship, and with so much the more care he ordered that care should be had to protect the Armada by a fleet fitted out by expending the custom duties (averias).

Lib. VII, Cap. IV. (The Emperor) sent instructions to all the Governors of the Islands and Tierra Firme to assure the safety

*This is probably an exaggeration; Florin had, probably, four only.

of the inward and outward voyage, and directing them what course to follow to avoid the corsairs.

Dec. III, Lib. X, Cap. XI, 1528. And as the French were still continuing to cruise (as corsairs), it was ordered that all vessels from the Indies should be well armed, and that they should gather at the Island of Hispaniola, and should sail together for mutual protection, for it was reported that the corsairs had captured a ship and taken from it the pilot and compass [chart?] in order to learn the navigation and help to look for the ships of the Indies, where they might be taken with greater safety to themselves.

The same arrangement was made for vessels sailing to the Indies, and that a Captain-General should have authority over the fleet, who, with experienced pilots, might save much loss, punish the mutineers, and repress the bad practice of the crews, who maltreated passengers and committed offences in the places where they stopped.

Revised maps were to be prepared under the supervision of Hernando Colon, etc.

A magazine of artillery and ammunition was also ordered to be established in Seville for arming the India-bound vessels.

XV.—BERNAL DIAZ DEL CASTILLO.

Cap. CLIX (CLXIX), fols. 163 and 164. Let us leave the letters and speak of the good voyage which our Procuradores pursued after they started from the port of Vera Cruz, which was on the twentieth day of the month of December [?], one thousand five hundred and twenty-two,* and they happily passed through the channel of Bahama,† and, on the way, two of the tigers out of the three which they carried escaped and wounded some sailors, and they determined to kill the remaining

* This date appears only in Bernal Diaz, and is certainly erroneous.

† The vessels were piloted by Anton de Alaminos, the discoverer of this channel, who accompanied Cortes to Mexico, and took his first vessel to Spain by this route. See B. Diaz, Cap. LIII; also note, *Gulf of Mexico*, to this paper.

one, because he was very wild and they could not manage him,* and continued their voyage to the island called *la Tercera*; and as Antonio de Quinones was captain, and considered himself valiant and in love, it appeared that he was returning to that island with a woman, and a quarrel arose about her, and they gave him a sword cut on the head, of which he died after some days, and Alonzo de Avila remained sole commander; and while Alonzo de Avila was steering, with the two ships, towards Spain, † not far from the island, Juan Florin, a French corsair, fought with them, and he took all the gold and ships, and Alonzo de Avila, and took the prize to France. And, in the same manner, Juan Florentin pillaged another ship coming from the Island of St. Domingo, and took from it twenty thousand pesos of gold and a great quantity of pearls and sugar and ox hides, and, with all this, he returned to France very rich, and made great presents to his King, and to the Admiral of France, of the articles and pieces of gold which we brought from New Spain, so that all France was marvelling at the riches which we sent to our great Emperor, and the desire took the said King of France also to own a part of the Islands of New Spain, and he said, at the time, that with the gold only that was going to our Cæsar from those lands he could wage war with his France, and although at that time Peru was not known or conquered, but, as I said, he only had that from New Spain, and the Islands of St. Domingo and St. Juan and Cuba and Jamaica, and it is told that afterwards the King of France said, or sent a message, to our great Emperor that as he and the King of Portugal had divided the world without giving him a portion of it, that they should show to him the testament of father Adam, whether they were named as his sole heirs, and lords of those lands which they had taken between the two without giving him any of them, and that for that

* Herrera, Dec. III, Lib. III, Cap. I, says there were two, and that the one which escaped wounded eight men and killed two. These animals were American jaguars.

† Bernal Diaz is the only authority for this scandalous tale, which may be only soldiers' gossip. Herrera, better informed, says Quinones was killed in the action with the corsairs. Diaz omits all reference to Juan de Ribera, the secretary of Cortes, who, according to Peter Martyr, was the chief of the deputation.

reason it was lawful to rob and take all that he could on the sea; and forthwith he ordered Juan Florin that he should return with another fleet to seek his living by the sea; and on that voyage which he undertook, and on which he made another great prize of all cargoes between Castile and Canary Islands, he met with three or four strong ships manned by Biscayans, and some of them attacking him on one side and the rest on the other, they fought with Juan Florin and destroyed and disabled him, and captured him and many other Frenchmen, and took their ships and clothing, and carried Juan Florin and other captains prisoners to Seville to the Casa de Contratacion, and despatched them prisoners to his Majesty; and after he knew it, he ordered that, on the way, they should be executed, and in the Puerto del Pico they were hung, and thus made our gold safe, together with the captains who carried it, and Juan Florin who took it. Now let us return to our story, which is that they took Alonzo de Avila prisoner, and they put him into a fortress, believing that they would get a great ransom, because he carried so much gold in his charge—guarding it well—and Alonzo de Avila, &c., &c.

XVI.—OVIEDO ON THE CAPTURE OF 1523.

Lib. XXXIII, Cap. XLI, Ed. Acad. Madrid, 1853, Vol. 3, p. 467-8.

This historian does not name Florin, although he mentions the loss of the vessels. After speaking of the despatch of the treasure and curiosities, he adds :

“ They were taken at sea by French corsairs, and many who I have heard speak of this, and who saw those things, estimated their value at more than one hundred and fifty thousand ducats of gold, and that of the money which they took besides, or rather the gold and silver, at as much more. And although he [Cortes] regretted what had happened, he said that on the other hand he was pleased that they had taken them, because they would not be missed by His Majesty, as he would labor to send others much richer and more curious, according to the news received from certain provinces, which he had then sent to conquer. And that he was also satisfied with such a loss, because the French and other nations to whom these things became known, would know that besides the great and extensive kingdoms and

seignoralities which Their Majesties held in Spain and elsewhere, one of the least of their vassals could perform such a service in so remote a region as these Indies, gaining so many kingdoms for the increase of the royal sceptre of Castille."

Oviedo arrived in Spain from Espanola November 5, 1523, and was with the Court during 1524 and 1525, starting again for America April 30, 1526. If, therefore, Florin had been taken or hung during that time, Oviedo would certainly have chronicled the fact.

XVII.—GOMARA ON FLORIN.

La Conquista de Mexico, Çaragoça, 1553, fol. lxxxvii.

After describing the things sent in the three caravels from Mexico, and giving the names of the officers in charge of their precious freight, all which seems to be taken from Martyr's Decades, he continues :

"But Florin, a French Corsair, took the two caravels which carried the gold, this side of the Azores. And he took at the same time that which was coming from the Islands with seventy-two thousand ducats, six hundred marks of mother of pearl (aljofar) and pearls, and two thousand arrobas of sugar."

Francisco Lopez de Gomara became the Chaplain of Cortes after the conquest, and is generally considered a most reliable though sometimes partial historian. He may have been in Seville, a young man, at the time of Florin's capture of the treasure, and is the first author, after Martyr, who mentions Florin's name. That he, like Martyr, should be silent about the taking and hanging of Florin, is significant of the groundlessness of the story.

XVIII.—DE BARCIA ON JUAN VERRAZANO.

Ensayo Cronologico para la Historia General de la Florida: por Don Gabriel de Cardenas y Cano. Madrid, 1723, folio.

This is one of the numerous works of the indefatigable Don Andres Gonzales de Barcia, whose name is concealed under the above anagram of it.

Fol. 8, year 1524. "Juan Verrazano, a Corsair of France, coasted the Eastern shores of Florida for more than 700 leagues. Having sailed on the 17th of January from the uninhabited rock of Madera, he arrived at the mouth of the river of Canada or St. Lawrence, noting the lands, its people and their customs, as he himself writes* to Francis the First, King of France, from Dieppe, on the 8th of June [July], whose narrative is abridged by Antonio de Herrera, who believed that he returned to France, although some say that he did not, having died on the way; and others that on attempting to land he was eaten by Indians the following year. If he did not return to Florida afterwards, it would not be easy to agree about it. The truth is, that at that time, there infested our Seas Juan Florentin, a French pirate, who made himself famous from having taken, in the year 1521, the Ship in which Hernan Cortes was sending to the Emperor Charles V, a present of gold, silver and other precious things, in the charge of Alonzo de Avila, whom he took a prisoner,† and another ship coming to Spain from the Island of Santo Domingo, of great value, with which, and others, he returned to France very rich, and made great presents to the King Francis, and to those of his court, who was astonished to see such riches."

"He took again to the sea, much honored and favored, and with greater forces and preparations; did great damage, and took innumerable prizes; and retiring to France with them, he was met near the Canaries this year by four Biscayan vessels, who took his ships and what they carried, carrying him a prisoner to Seville, with others. Thence they were sent to Madrid, but those who had influence and had been damaged through his violence, clamored for justice: so he and the other Captains were executed, being hung in the Puerto del Pico as pirates, public enemies of nations."

Barcia erroneously places the first capture in 1521. We have shown that Florentin took a Santo Domingo ship in this year,

* The Spanish reads, "como se dice, que el mismo lo escrivio a Francisco, &c.;" but he cannot mean to say that he was not acquainted with the letter itself in Ramusius.

† Who (Avila) having recovered his liberty went afterwards with Francisco Montejo to the conquest of Yucatan as Royal Treasurer, keeping the rank he held in New Spain. (Parenthesis in text.)

but the Cortes treasures, with another West India vessel, were taken in 1523. In 1522 he was driven away from the Canaries, according to Viera, and also from the Spanish coast, according to Herrera,* without carrying off any prizes. The conflict with the Biscayans is the story told by Bernal Diaz. This is therefore a very confused account, and palpably incorrect as to dates. His story of the execution is evidently taken at second hand from Bernal Diaz, leaving but a slender hearsay report as a foundation for it. As before stated, these two writers alone mention the execution of Juan Florin.

It will be noticed also that he makes him sail along our coast from north to south.

XIX.—DE VIERA.

Notices of the general History of the Canary Islands, by Don Joseph de Viera y Clavijo. Madrid, 1772. 3 vols. sq. 8vo.

Vol. II, Cap. XII, p. 294 (Castillo MS., lib. 3).

Action of the Governor of Canary, Pedro Suarez de Castilla, &c. (abridged).

"In the sixth year of his government, which was in 1522, he sent out vessels to recapture seven boats with emigrants for the Islands, and made Juan Florin, the corsair, release them.

"He then betook himself to the Azores, and captured two vessels returning from America, sent by Cortes, with the Ransom of Montezuma, with over 88m. Castellanos in bars of gold and plate, precious stones, pearls," &c.

There are two Castillo manuscripts mentioned by de Viera, in his Prologo. The above extract is probably from the one by Don Pedro Agustin del Castillo of Tenerife, being a history of the Islands. It would be interesting to look at this manuscript carefully, as it may contain further details about the above occurrence.

* Dec. III, Lib. I, Cap. XIV.

XX.—CORTES DE VALLADOLID.

Las Cortes de Valladolid del ano do 1523.

Printed 1551.

Peticion LXXIII.

"Item that the seas of the Kingdom of Granada and Andalusia, and also those of Castille, being full of Moorish, Turkish and French corsairs; so that no one can traffic, and every day they attack the forts and capture persons and effects, and also other damage, therefore your Highness is begged that the fleet may cruise in said seas, and that another fleet may be prepared, if necessary, so that the seas may be cleared in such a manner that commerce can be carried on, that the galleys may be equipped and entrusted to a person of experience and accustomed to maritime matters, and that your Highness would provide in such a way that these Kingdoms may not suffer such damage, disgrace and affront that no one dare leave his house, and merchants dare not come to Castille, from fear of the corsairs, and from this reason the goods that are brought and enter the Kingdom are twice as costly as they used to be.

To this we answer, that we appreciate what you tell us, and it is right that measures should be taken, and we charge you to arrange among yourselves the manner and method which is to be followed to remedy it, and advise us thereof; because what can be provided according to our means shall be done, and in the providing of the galleys we have already entrusted them to a person experienced in the sea."

Peticion LXXII.

"Further; that a guard of the coast of Granada be provided, as it was in the time of the Catholic Kings.

To this we answer, that it shall be done."

This is probably the petition alluded to by Peter Martyr, as having been presented by the Council of the Indies, in Decade VII, Cap. IV. It is, however, uncertain whether the sending of an armed fleet under Domingo Alonzo to the Azores, was an independent act of the Council of the Indies, or in accordance with this decree.

XXI.—CORTES DE TOLEDO.

Las Cortes de Toledo del año de 1525.

Printed 1550.

Petition XXII.

“Also we entreat your Majesty that since all the Kingdom and the coasts of Castile, as well as those of Andalusia, are much cursed (*damnificada*) by the robberies which the French and Moors have committed, and continued to do daily, of many ships and merchandise of great value, and of the gold from the Indies, which they have taken because our coasts are not guarded; by which your Majesty is much injured, because the French provide themselves with our ships, and the Moors take them also, and with them carry on war, and the coasts will remain without shipping, from which great damage will ensue to the whole Kingdom, may your Majesty be pleased to order that in the Cities and places in the land of Biscay and of Guypuscoa those who may wish to do so may arm, your Majesty ordering and aiding them to do this, and further providing thus for the sea coast as may be required; and also in the ports of Andalusia and the Moorish coast, may your Majesty order this to be remedied and provided for; in such manner that the French and the Moors may not do mischief as they have done hitherto; all which your Majesty has promised many times for the peace of your Royal mind and for the honor and profit of these Kingdoms; and towards this his Holiness has granted and grants many Bulls and Indulgences.

To this we answer that we hold it a service for all those of our Kingdoms who desire it to arm for the above purpose; and to aid in the outlay they may make, we have ordered and now order that during our Royal reign the fifth belonging to us in all prizes taken shall be granted; in furtherance of which we order our Council to make the required regulations; and as for the coast-guard, we have ordered our Council of War to issue orders, to provide that the coast be made safe and well watched, that our subjects may not suffer loss.”

This decree was perhaps issued in 1523 or 4, after the great captures of the Mexican treasure vessels, and the Biscayans, who met and captured a fleet of French Corsairs, probably fitted out under its authority.

XXII.—CORSAIRS IN THE WEST INDIES AFTER 1527.

Continual complaints of the ravages by French and English corsairs were made by the officials in the West Indies after the year 1527. The thirst of the Spanish monarchs for gold, and the rapacity of individual adventurers, left the colonies poor, and productive of little besides articles of intrinsic value. So little had been expended for the defence of these rich islands and provinces, that as late as 1585 there had been constructed but one fort for their defence,* the poor one in the port of Sto. Domingo, of which the historian Oviedo was alcalde from 1533 to 1554. His complaints of its poor condition, with its ten soldiers, a few small cannon and small supply of powder, were unceasing. This fort, and some minor defences at other points, are said to have been constructed for defence against the Indians only, and not as a protection to the ports.

The only naval armament consisted, in 1541, of galleys at a few ports,† and the sea was quite open to any daring foreign adventurer. This defenceless condition became known to the French and English, who soon took advantage of it, and their privateers roamed in the Gulf and Caribbean Sea, entering ports and seizing laden vessels in them, sacking towns or levying ransom, and refitting in places which dared not refuse supplies.

Some of the English vessels had French pilots, who were better acquainted with the routes to the islands and the coasts there than their own, the French having been the first to inaugurate privateering at the sources of the supply of precious metals.

From this time the pursuit of Spanish treasure became unceasing, and was continued for a century and a half by the French or English, the Dutch also entering the lists after shaking off the Spanish yoke. The history of the early buccaneers has not been written, but many tales of the exploits of their successors have been gathered. Spain paid dearly for her colonial policy of exclusion, and reaped no lasting benefit from her possessions in the New World.

* Doc. In., 1864, 581.

† See in reference to the above: Oviedo, Herrera, and Documentos Ineditos, particularly the volume for 1864, pages 12, 15, 511-18-48-70-72-75-81-83.

XXIII.—ROUTES TO AND FROM THE WEST INDIES.

No settled route from Spain to the West Indies had been pursued until Pedrarias Davila, in 1514, going to Castilla del Oro (Darien), with a fleet, took advantage of all that could shorten the navigation, and his path across the ocean was thenceforth adopted as the regular one to be followed. Oviedo, Herrera, Cespedes and others describe the route outward and inward circumstantially.

The first course outward from Spain was to Gran Canaria, Gomera or Palma, occupying eight or ten days, where supplies were taken in. Taking a departure from Ferro, a course was made W. S. W., $\frac{1}{4}$ S., toward the Northerly windward Islands, favored by the Brisas or trades, endeavoring to sight La Deseada and Dominica. This course, occupying about twenty-five days, was estimated at 750 leagues. On a great circle, it measures 721 Spanish leagues, or 2,470 nautical miles. Vessels badly steered would go wide of the mark, and first make the leeward islands, or even the coasts of Honduras. From Dominica they would generally make for the city of Santo Domingo, on the south side of Hispaniola, unless bound for Tierra Firme. The whole voyage was made in about thirty-five to forty days, and the vessels bound to the Northerly Islands would sail in April or May, but if for Tierra Firme, in August or September.

The return voyage was made in a higher latitude, in order to avoid the trades and meet the north-west winds. At first, vessels passed out into the ocean through the old Bahama channel, but after the Florida channel had been discovered by Alaminos, and the corsairs became troublesome, they were ordered to rendezvous at Havannah, and sail in fleets for mutual protection. Thence they kept well to the north, sometimes sighting the Bermudas, and generally stopping at the Azores. If the Azores could not be made, a course was made to Cape Blanco. From either of these points the course was taken toward Cape St. Vincent, in Portugal. In the winter season the lower course, in lat. 33 deg., was preferred. Twenty or thirty days was the average time of the voyage to the Azores, and fifteen or twenty thence to San Lucar, though much better time was sometimes made, while others were

three or four months on the way. The start from New Mexico, or Havannah, was generally made early in May.

We give the above in order to indicate the stations which the corsairs would most likely select to waylay Spanish vessels, and the seasons at which they might expect them. About 1527, the French and English corsairs found that by following the trades to the West Indies, they could better attack the treasure-laden vessels of the Spaniards before they had gathered at their rendezvous in Cuba. The precautions taken to guard them after they had thus met together almost put an end to the watch of the corsairs around the Azores and Cape St. Vincent, which had proved so profitable to Verrazano.

XXIV.—SUPPRESSION OF GEOGRAPHICAL KNOWLEDGE BY SPAIN.

The jealous secretiveness of Spain regarding her marine charts has been noticed in another note, and therefore the appearance of a chart of the West Indies in Martyr's Decade of the Ocean, in 1511, must have been unauthorized and probably distasteful to the government. Curiously enough, the King, in this very year, forbids the communication of Spanish charts to foreigners, and it may be that this measure was dictated by the publication of this chart as much as by the Portuguese attempt to get maps from Vespuccius. Possibly this may have led to a suppression of the book, for but very few copies of it are now known. The next editions, of 1516 and 1530 (this last, the fullest one, and published after his death) have no maps at all.

No maps by Columbus or by the Spanish explorers of America were ever published. We have none by Cortes or Pizarro, Magellan or Gomez, but they all prepared draughts of their discoveries, no doubt, that served the *Pilotos Mayores* in the compilation of the fine manuscript charts preserved in European libraries. In fact, we find many references to such charts, but very few of them are now known.

No official general charts of the Americas were published in Spain until 1790, but several sketches, such as Pedro de Medina's

of 1545, appeared in Spanish works after the middle of the sixteenth century. The first general map of the new continent, published from Spanish authorities, is that by Sebastian Cabot in his *Mapamundi* of 1544, of which but one copy, found by the late Von Martius of Munich, and sent to the Royal library in Paris, in 1843, is now known. Cespedes, in 1606, speaks of it as having been presented to the King of Spain. Its rarity can only be explained by the desire to suppress it by Spanish authority; and the loss of Cabot's papers and memoirs after his death, in 1556, was, no doubt, the result of the same jealous desire to suppress a general knowledge of the Spanish colonial empire. The attempts made to represent the New World by Hylacomilus, in 1513, by Schöner and Apianus, in 1520, and Gemma Frisius, in 1525, were mere guesses at the real outlines of America, until the general interest taken in the Spanish discoveries after the conquest of Mexico, and the wonderful voyage of Magellan, brought out the tolerably accurate map of Oronce Finé, of Dauphiné in 1531. Severe penalties were threatened, and death was to be the punishment of those who allowed strangers to get copies of Spanish charts. These charts, however, must have fallen, at times, into the hands of foreigners, and our navigator, no doubt, had found several such in his prizes, and thus the routes to the Indies became known to the English and French. Spanish pilots may have entered foreign service, but if so they probably assumed an *alias*, and but one such is named up to the year 1530.

XXV.—FAMILY OF VERRAZANO.

Two Eulogies of Giovanni de Verrazano appeared in Florence about the same time. One, which we have not seen, was included by Giuseppe Allegrini, a printer in Florence, in the second Volume of the work entitled *Ritratti ed Elogi degli Uomini Illustre della Toscana*, 1768. The other was prepared by Giuseppe Pelli for the same work, but was for some reason, not accepted, and was printed separately by the author, with a preface mentioning the above facts, in 1769. It is signed G. P., but we learn the name of the author from Tiraboschi. Pelli also published

Memoirs for the life of Dante, a work of some value, and which was republished in 1823.

The notice of Verrazano is entitled *Elogio | di Giovanni da Verrazano | Fiorentino | Scopritore della Nuova Francia nel Secolo XVI.* | [Colophon.] *In Firenze MDCCLXIX.* | *Nella Stamperia di Giuseppe Allegrini, e Comp.* | Square octavo, pp. xi.

The copy we have consulted, perhaps the only one in this country, was purchased at the Kirkup sale, London, December, 1871, and was kindly loaned to us by the Hon. Henry C. Murphy.

The family of Verrazano is considered by Pelli, to have come from Verrazan,* a place in the Val di Grève, a few miles South of Florence (which in the twelfth century belonged to the De Bertoldis e da Panzano), and at the time of his writing still held property there. The same writer says that the Gonfalonierate was twice held by members of the family, and the Priorate about forty times. He names Ludovico di Francesco di Baccio da Verrazano, as having distinguished himself when Governor of Leghorn and Commander of the galleys of San Stefano.

His eulogist states that his parents' names were Piero Andrea di Bernardo [di Bernardo] da Verrazano, and Fiametta Capella. Giovanni was certainly born after 1480, and had a brother, who was of the Priori in 1529, (possibly the Hieronimus who made the chart, now preserved in Rome, which Mons. Thomassy has described.)

The biographer adds that he had seen, in the possession of the family, a copy of Ramusius with a MS. treatise on navigation added to the letter, which was no doubt a copy of the one seen in the Magliabechian Library, by Mr. Greene in 1837, and given in Vol. I of the Proceedings of the New York Historical Society, New Series, 1841. Besides the above, Pelli gives some

* There is a place, whose modern name is very like that of our navigator's, viz., *Verraza*, the ancient *Voragina* or *Varagio*, a few miles west of Cogoletto, one of the places which claims to be the birthplace of Columbus. Verraza is on the *Riviera de Ponente*, some eighteen miles west of Genoa, a place where much shipbuilding is done, and the birthplace of Jacopo di Voragine, a Dominican, Archbishop of Genoa in 1292, and the compiler of the curious collection of stories known as the Golden Legend.

other details, not immediately relating to our Navigator, and notices in a brief manner the voyage of 1524, from the text of Ramusius, without a suspicion that a copy of perhaps the original letter was preserved close at hand, in the city where he was writing.

No doubt the family history could be traced with greater certainty by a modern Italian scholar, versed in such studies. We can add one or two names to the family, that may assist investigators. A fine Manuscript sermon, written in the neatest style of Italian script, signed at the end "*Alexander Verrazanus escripsit MCCCCLXXXIII*," was procured by us from the above mentioned sale of Baron Kirkup's library, lot No. 4035. This may have been an uncle of Giovanni's, who had taken holy orders.

We find the same Christian name mentioned in Coronelli's *Epitome Cosmographica*, published in Cologne in 1693. At page 263 we read, after a short notice of the voyage of 1524, "that one of the same family, named *Alessandro*, was living at that date in Florence."

In the letter of Annibale Caro, of October, 1587, the Verrazano who is addressed as a Mapmaker and traveller, and as having a brother also a navigator, was probably Hieronimus, author of the *Mapamundi*. Mr. Smith, however, in his Inquiry of 1864, treats this letter as a fiction and literary *jeu d'esprit*, but we are of a contrary opinion.

Mr. Greene says that the family became extinct in Florence by the death of the Cavaliere Andrea da Verrazano, who died there in 1819.

Since the above was written we have seen the work first mentioned and find that it adds nothing to what was already known, concerning our navigator, though some details may be gleaned from it not contained in Pelli's Eulogy. The work in which this Eulogy appears is entitled, "*Serie di Ritratti d' Uomini Illustri Toscani con gli Elogi istorici dei medesimi*," &c. [title engraved,] Firenze, appresso Giuseppe Allegrini. In four large imp. folio vols. with engraved portraits, &c. Many of these are engraved by Francesco Allegrini. The dates of the vols. are 1766-68-70 and 73. The Eulogy, with portrait of Verrazano, is under No. 30, in the second volume. It is signed A. C. N. and in the "*avver-*

timento," the author of it is not named, but is said to be a relative (*agnato*) of the jurist Antonio Maria Rosati. Pelli is here acknowledged to be the chief editor of the work. The present Eulogy, as before said, was substituted for the one he had prepared, in consequence of some unexplained misunderstanding.

The name is here spelt *Verrazzano*. On the authority of Cosimo della Rena, the family is said to be of Lombard origin, to have settled in the Val di Grève, and acquired citizenship in Florence in 1190. One of them in 1260 was a Guelf leader, another in 1428 was a general of the Duke of Milan, and Francesco, the Governor of Leghorn, is said to have been much honored by Philip the Fourth of Spain. His mother is farther identified as *Fiametta (di Barone, di Giovanni, di Filippo) Capelli*. With Pelli, the author assumes that he was not born before 1480, as his name is not found on certain Registers (*Catasto*) that close with that year.

This Eulogist then speaks of the voyage to America, from the letter as given in Ramusius, referring to Charlevoix, &c., but adding nothing to what we already know except that he draws attention to the manuscript copy of the letter, with its cosmographical appendix, in the Strozzi library. (Pelli saw this appendix in MS. in the family copy of Ramusius.) It was therefore from this reference that Tiraboschi was probably enabled to refer to this version of the letter in its first form, which Mr. Greene copied for the New York Historical Society, who published it in 1841.

In a closing note, the author speaks of a portrait of the navigator, hanging in the *Real Galleria Medicea*, in the Series of Illustrious Men, and as among the famous Seamen, under No. 37. He also mentions a medal struck in his honor, as described in the "*Tramoggia del Annale Secondo della Accademia Colombaria*" under No. 139.

The Portrait accompanying this Eulogy is probably of very doubtful authenticity. It represents a good looking man in armor, with a *baton* in his right hand. Under the portrait there is a coat of arms, which if it really represents the bearings of the family, is curiously suggestive of nautical pursuits. It has a large eight pointed star, gules, with a small shield on the dexter chief bearing a double *fleur de lis*, all on a field party per pale, or and

argent. This seems to be an attempt at a marine compass, and recalls the arms of Amalfi, where that instrument is said to have been invented or improved by Flavio Gioja.

Under the Portrait is the following Inscription, *GIOVANNI DI PIER ANDREA DI BERNARDO DA VERRAZZANO | PATRIZIO FIOR^{no} GRAN CAPIT^{no} COMANDANTE IN MARE PER | IL RE CRISTIANISSIMO FRANCESCO PRIMO, | E DISCOPRITORE DELLA NUOVA FRANCIA. nato circa il MCDLXXXV morto nel MDXXV. | Dedicato al merito sing^o dell Ill^{mo}, e Rev^{mo} Sig^o Lodovico da Verrazano | Patrizio, e Canonico Fiorentino Agnato del med^o | Preso dal Quadro Originale in Tela esisente presso la sud^a Nobil Famiglia. | G. Zocchi del: F. Allegrini inci: 1787 |*

XXVI.—CRIGNON, PARMENTIER, ESTANCELIN.

L. Estancelin published at Paris, in 1832, in 8°, his "*Recherches sur les Voyages et Découvertes des Navigateurs Normands*. He was the fortunate discoverer, among the papers of Mons. Tarbé of Sens, of an account of the voyage of Jean Parmentier, of Dieppe, to Sumatra, in 1529, which was prefaced by a cosmographical treatise.

This last was given in Italian by Ramusius, in his collection, Vol. III, 1556, folios 423 to 431. Ramusius regrets not being able to give the name of the author of this "*Discorso*," and had apparently not seen the second part, which is the Voyage to Sumatra in 1529.

The manuscript discovered by Estancelin, is considered by him to be of a contemporaneous hand. He gives it in full, adding the Italian part as found in Ramusius. The first part, however, alone interests us, as containing perhaps the first written evidence alluding to the voyage of Verrazano.

Mons. Margry, in his *Navigations Françaises*, etc., pages 130, 199, considers Pierre Crignon, the companion of Parmentier, to have been the author of the Discourse and Narrative. Parmentier, the commander of the expedition, died December 3, 1529, in Ceylon. There is no evidence that Crignon was the author of the *Discourse*, although he was a good navigator, and wrote a treatise on the variation of the magnetic needle.

This first part, or *Discorso* as Ramusius well calls it, though a very brief one, gives the author's ideas of the coasts, and of the distances along them, of the known world. It is written in a clear and sketchy manner, and we should like to dwell upon it in greater detail, but shall confine ourselves to the passage in which he alludes to Verrazano.

This discourse appears, from internal evidence (and is admitted by Mr. Margry), to have been written in 1539, and is interesting as presenting the first notice of the voyage of 1524, written by a person who perhaps had known its commander.

"*The land of Norumbega.* Following the direction of Cape Breton [from E. to W.], one meets with a land contiguous to this cape, and whose coast extends westwardly, one quarter south-west [W. by S.], to the lands of Florida, embracing a space of about five hundred leagues. [Our author had clearly not been along this coast himself.]

"This coast was discovered, fifteen years since, by Messire Jean de Verrazano, who took possession of it in the name of the King, Francis the First, and of Madame, the *Régente*. Many navigators, and even the Portuguese, call it the *Terre Française*. It ends towards Florida, at the 78th degree of longitude West, and 80th degree of latitude North. The land is very fertile in all kinds of fruits; it grows orange trees, almond trees, wild grape-vines, and a great variety of odoriferous trees. This land is called *Nurumbega* by the natives."

About the name Nurumbega, here first mentioned, much has been written without any satisfactory derivation having been suggested, except that it seems to be a native name with the termination *eg* or *ek*, sometimes found farther south as *og*, *ok*, or *ogue*, which is an adverbial addition, meaning the *place where*, or the *place of*. It is also a common Breton or Norman termination to the name of many places, and thus perhaps its origin may be traced to the early fishing expeditions to these coasts, about which so little is known.

Another suggestion has been made, that the name may date back to the time of Ayllon, for Peter Martyr, in giving the details of the Licentiate's explorations, in the second book of his Seventh Decade of the New World, written in 1524, but not published till 1580, says, "*The Spaniards travelled through many of the great provinces of these little Kings, among which they named Arambe, Guacaia, Quohathe, Tanzacca, Pahor, all the natives of which are dusky.*" As no such name as Arambe or Arambes

appears on the Spanish maps of 1527 and 1529 by Colon and Ribero, which were made up from the very reports of Ayllon and Gomez, and as Peter Martyr's work was probably unknown to the author of the Memoir of 1539, it seems that we have here a mere verbal coincidence. One might as well make Powhattan and Tennessee out of two of the other names.

On the copper globe of 1542, by Ulpianus, (preserved in the New York Historical Society), we find, in the position generally assigned to Norumbega, an attempted latinized form of it as *Normanvilla*. This seems to be its first appearance on a map.

The map of Hieronimus Verrazano shows, however, in the photographic copy of it before us, a trace of a name like Norumbega.

XXVII.—DESMARQUETS.

Jean Antoine Desmarquets, author of the *Memoires Chronologiques de Dieppe*, etc., Paris, 2 vols., 12°, 1785, (Vol. I, page 100,) gives to Thomas Aubert, on his voyage to Newfoundland in 1508, a companion named *Jean Verassen*. He pretends to have found this fact in the old archives of Dieppe, but from the tenor of a foot note on the subject, he does not consider this *Verassen* to be the same person as *Verrazano*, the Florentine.

He adds that in the year 1508 these two captains, in two vessels, ascended the St. Lawrence River for more than 80 leagues (240 geographical miles), naming it thus because they began to ascend it on that saint's day, the 10th of August.

This remarkable statement is entirely isolated, and has not since been verified and confirmed. As the archives of Dieppe were destroyed in the bombardment and conflagration of 1694, and the author of these memoirs had little else to consult but private records, his early history of Dieppe is not considered reliable. There is good evidence that Thomas Aubert did make such a voyage in that year, but the name of Verrassen is not elsewhere mentioned.

The evident desire of Desmarquets to lessen the merit of Jacques Cartier, of St. Malo, a rival seaport, as having discovered the St. Lawrence in 1534, has perhaps led him into putting faith

in some indications of such a previous discovery among the papers he consulted.

Estancelin, a Dieppese himself, and a close student of what is left of the early history of his native place (and whose family papers were used by Desmarquets, as that author states in his preface), found no such name as Verrassen associated with that of Aubert. Compare, *op. cit.*, p. 43 and 222.

XXVIII.—RIBAUT.

Ribault, who sailed for Florida from Havre de Grace on the 18th of February (O. S.), 1562, but did not leave the coast near Brest till the end of February, determined to cross the ocean in a direct line, supposing that he was the first one to attempt it, forgetting or not knowing that Verrazano had done it before. (See *Hak. Soc.*; *Div. Voy.*, edited by F. Winter Jones, pp. 95-98.) He says: "I determined to prove a newe course which hath not beene yet attempted, etc., to make the furthest arte and traverse of the seas, that ever was made in our memorie or knowledge, in longitude from the East to the West."

They sighted Florida on the last of April, having been delayed by storms, being, therefore, two months on the voyage, which is a fair run, considering the unfavorable season of the year, and the imperfect build of the vessels of those days.

Verrazano was fifty days on the voyage from Madeira to Florida.

XXIX.—TAVANNES' MEMOIRS, 1536.

There is to be found in the Memoirs of Gaspard de Saulx, Seigneur de Tavannes, of 1536, a curious passage* (which we translated for the Historical Magazine, Vol. VI, 1862, p. 157), in which the author dwells on the rise of prices, caused by the

* First privately printed; republished, 1657, and included in Petitot's collection, Tom. 23, Ser. I, p. 238.

influx of the precious metals from the new Indies, and the power conferred by gold on nations possessing it. He also anticipates the use of paper money by proposing the use of tokens of iron, coined "in such a way that it could not be imitated." He closes thus: "This conquest of the New World, proposed to the French and despised by them, is a proof of the little talent of their counsellors, who lost empires for their master, and let their enemies conquer them instead."

There seems always to have been a vague tradition relating to the object of the stay of Bartholomew Columbus at the French court about 1490,* and also of the undertaking of Verrazano, in 1524, circulating in France, but without positive evidence concerning the success of either.

Montesquien, for example, says (*Esprit des Loix*, book XXI, chap. XXII), "I have frequently heard people deplore the blindness of the court of France, who repulsed Christopher Columbus when he made the proposal of discovering the Indies."

The general rise in the prices of all the necessities of life after the conquest of Peru, became so noticeable that it attracted the attention of the government. One of the reasons to which this advance in values was attributed was the exportation of such articles to the Indies. This forms the subject of several petitions to the Emperor, in 1548, with the prayer that such exportation may be stopped. The emperor's answer to one of them, praying that woolen, cotton and silk goods may not be exported to the Indies, is that he has referred the matter to the Royal Council and to the Council of the Indies jointly, and that he will act on their advice. †

The result of this reference is not given, but such a prayer shows how little Spain understood the management of her colonies. As mere producers of the precious metals, the value of these fell as they became more plenty, and no one was the gainer by such a trade.

* See Noticias de D. Bartolome Colon, por D. E. F. de Navarrete, in the Coleccion de Documentos Ineditos para la Historia de Espana, Tomo XVI, 1850, pp. 485-574.

† See *Pragmaticas de Valladolid, Año de 1548, peticion 214*; printed in that city by Fernandez de Cordova, 1549.

XXX.—ANDRE THEVET, 1557.

Thevet does not, in his "*Singularitez de la France Antarctique*," 1557, allude to Verrazano's voyage. This work is generally supposed to have appeared in Paris and at Antwerp, 1558, but we have a copy with the imprint Paris, 1557. In his "*Cosmographie Universelle*," 1575, he speaks of him, but only from the published letter. Thevet, however, is a poor authority, for his statements are often false, and his omissions many. Jean de Lery does not hesitate to call him a superlatively impudent liar.

XXXI.—BELLEFOREST, 1570.

François de Belleforest, in his "*Histoire Universelle du Monde*," 1570, writing, book 4, about the New Lands, gives details, taken from Ramusius, concerning *Verrazan* (as he calls him), but in a marginal note, gives the correct name, *Loiss*, to the island off the coast, which Verrazano said was named after the King's mother. It does not appear, however, that he had any map of the explorations before him, while he expressly adds that he had not met with any other account, in books, concerning the Florentine, except in his *Memoir*, meaning the letter to the King. He appears to have misunderstood Ramusius, for the death of Verrazano is noted by him as having occurred about the year 1524.

XXXII.—ITALIAN VERSIONS OF THE HEADING TO THE LETTER.

I. Extracted from Collections New York Historical Society, New Series, Vol. I, 1841, p. 55. Punctuated from Greene's quotation in North American Review, October, 1857, p. 394.

Il Capitano Giovanni da Verraznano, fiorentino di Normandia alla Serenissima corona di Francia dice:

Da poi la fortuna passata nelle spiagge settentrionale, Ser^{mo} Signore, non scrissi a vostra serenissima et cristianissima Maesta,

quello che era seguito delli quattro legni, che quella mandò per lo oceano ad inscoprir nuove terre, pensando di tutto sia stata certificata come dalle impetuose forze dé venti fummo constretti, con sola la nave Normanda e Dalfina affliti, ricorrere in brettagna, dove restaurati avrà V. S. M. inteso il discorso facemmo con quelle armate in guerra per li lidi di Spagna, di poi la nuova disposizione con sola la dalfina in seguire la prima navigazione, dalla quale essendo ritornato, darò avviso a V. S. M. di quello abbiamo trovato.

II. Extracted from Ramusina, Vol. III, 1556, fol. 490.

Non scrissi à V. Maestà CHRISTIANISS. RE dopo la fortuna havuta nelle parti Settentrionali, di quanto era delle quattro Navi seguito, da V. M. mandate à discoprire nuove terre per l'Oceano, credendo che di tal successo convenientemente la fosse stata informata. Hora per la presente le darò à quella notitia, come dall' impeto de venti con le due Navi, Normanda, & Delfina, fummo constretti così mal conditionate come si ritrovavano scorrere nella Bretagna. dove poi che furono secondo il bisògno racconciate, & ben armegiate, per i liti di Spagna ce nandammo in corso. il che V. M. haverà inteso per il profitto che ne facemmo. Dipoi con la Delfina sola si fece deliberatione scoprir nuovi paesi, per non lasciar imperfetta la già mindiata navigatione: Il che intendo hora a Vostra Maestà raccontare, accioche di tutto il successo sia consapevole.

XXXIII.—COSMOGRAPHICAL PORTION OF THE LETTER.

[1.] It remains for me to narrate to your Majesty the order of the said navigation as regards cosmography. As above said, starting from the before mentioned rocks, which are placed on the bounds of the West as known to the ancients, and from the meridian drawn through the Fortunate Islands, in 32 degrees of latitude from the equator of our hemisphere, sailing to the West, unto the first land, we found 1,200 leagues, which contain 4,800 miles, counting four miles per league according to maritime usage,

[The following passages are obscure, and we have paraphrased them as we understand them]

[2.] The proportion $3\frac{1}{4}$ of the diameter to the circle, would make the above distance $92\frac{5464}{47733}$ degrees, in lat. 34 degrees, that of the land first discovered by us. The chord or diameter of a great circle [of 360] being $114\frac{6}{11}$ [$\frac{6}{11}$?], would make this $95\frac{22}{45}$ degrees at the equator, in degrees of $62\frac{1}{2}$ miles each, as fixed by many who have determined it. Thus we have $18759\frac{21}{12}$ miles [in lat. 34°] which, divided by 360, makes each degree in lat. 34° equal to $52\frac{1909}{9072}$ miles. Besides this, we have reckoned that 1,200 leagues in a straight line from West to East, from the meridian of those rocks, which are in lat. 32° to lat. 34° would also give those $92\frac{5464}{47733}$ degrees, and thus much more have we sailed to the West than was known to the ancients.

[3.] This distance was noted by us as to longitude with various instruments, sailing without lunar eclipses or other observation for the movement of the sun. Seeking always the height [of the sun] at the time that was proper, the ship was run geometrically [the distance estimated], by the difference between the [midday] horizons, the interval from one meridian to the other being fully noted in a little book, together with the rise of the sea [current] in every climate at different times or hours, which, we think, will not prove useless to navigation. With the best wishes for [advancing] learning, I present it to your Majesty.

[4.] My intention was to reach [*pervenire*] by this navigation to Cathay, in the extreme east of Asia, expecting [however] to meet with new land such as was found as an obstacle, but I had reason to suppose that it was not hopeless to penetrate to the eastern ocean. This opinion was held by all the ancients, and it was positively believed as certain that our ocean was one and the same as the eastern one of India, without any interposition of land. Aristotle affirms this, arguing by various comparisons, which opinion is much opposed to the modern one, and by experience proved false, because land is already found, unknown to those ancients, another world as regards the one known to them. It appears really to show itself to be larger than our Europe, Africa, and even Asia, if we rightly judge of the size of it, as I will briefly show it in a short discourse to your Majesty.

[5.] The Spaniards have sailed on a meridian $20\frac{5000}{6711}$ degrees

West of the Fortunate Islands, towards the South, to 54 degrees [South] beyond the equator, where they found the land without a termination; then turning North to the equinoctial, following the shore to 8 degrees from the equator, then [the land ran] more to the West, inclining to the North [N. W.] as the said meridian runs, the shore continuing to 21 degrees [N. lat.], finding no end to it. They have sailed $89^{\frac{20700}{46762}}$ degrees, which, added to the $20^{\frac{52000}{46761}}$ [comp. ante], make $110^{\frac{44900}{46763}}$ degrees, and so much they have sailed more to the West, from the said meridian of the Fortunate Islands, in the parallel of 21 degrees of latitude. This distance has not been verified by us, not having made this navigation. It may vary a little more or less. We have calculated it geometrically from the notices of many nautical men who are familiar with it, who affirm that it is 1,600 leagues, judging by the estimate of the run of the vessel according to the nature of the wind. In the succeeding voyage I hope that, in a short time, we shall have further proof. On the other hand, we in this our navigation made by your Majesty's order, besides the 92 degrees which we made from the said meridian towards the West, to the first land found in 34 degrees, sailed 300 leagues to the East and 400 leagues to the North, the shore of the land continuing to the East, until we reached 50 degrees.

[6.] We left the land which in past times was found by the Portuguese, which they followed farther to the north, reaching to the Arctic Circle, leaving its termination unknown. Therefore, putting the Northern with the Southern latitude, that is the 54 degrees with the 66 degrees, they make 120 degrees, which is more than is contained in the latitude of Africa and Europe. For measuring from the extreme of Europe, which are the limits of Norway standing in latitude 71 degrees [$71^{\circ} 12'$], to the extreme of Africa, which is the Cape of Good Hope in latitude 35 degrees [$34^{\circ} 51'$, both nearly correct], it only makes 106 degrees. If the breadth of the said land corresponds in proportion with its maritime front, there can be no doubt but that it exceeds the size of Asia. In such a shape we find the globe of the earth much larger than it was held to be by the ancients, contradicting the mathematicians in regard to the sea being smaller, for we have seen the contrary by our own experience, and as to its land area, this is, we judge, not less than that of the water. As things

appear, I have better hope and with more reason to exhibit to your Majesty all this new land or new world of which we have described the size as above. We know that Asia joins Africa, and are certain that it is united with Europe by Norway and Russia, and thus know that it is false, according to the ancients, that they could have sailed from the promontory of the Cimbri to the eastward along the whole north reaching to the Caspian Sea. They likewise [falsely] affirmed that it [the world] was enclosed between two seas only, situated to the East and West, and that these two did not meet each other, for beyond 54 degrees from the equator, towards the South [the land] extends to the east through a great space, and to the North, passing beyond 66 degrees, turning then towards the East till it reaches 70 degrees.

I hope to have within a brief period more certainty about it, with the assistance of your Majesty, whom may the omnipotent God favor with lasting glory, in order that we may see the best results of this our cosmography accomplished in the holy words of the Evangel.

On the ship *Delfina* in Normandy, in the port of Dieppe, the 8th of July, 1524.

Humilis servitor,

JANUS VERRAZANUS.

XXXIV.—NOTES ON THE COSMOGRAPHICAL PORTION OF THE LETTER.

1. This cosmographical appendix, if entirely the work of Verrazano, shows him to have been well versed in the cosmographical knowledge of the time. He had probably acquired all the cotemporary information that was to be had from the imperfect treatises on the sphere by Ptolemy, Sacro Bosco, Apianus, Gemma Frisius and others, that were studied then.

The first regular treatise on Navigation was that of Raymond Lullius of 1294. Pigafetta, the companion of Magellan, composed a small one about 1530, and Francisco Falero wrote on the longitude; but the first works of general authority on this subject were Pedro de Medina's *Arte de Navegar*, of 1545, and Martin

Cortes' of 1551, which were eagerly translated into other languages.

2. The proportion of $114\frac{1}{11}$ [$114\frac{1}{11}$ misprint] to 360, which he seems to assume as the ratio of the diameter to the circumference, is a convenient but not very correct one, as it fails on the third decimal.* The curious proportion discovered by Metius of 113 to 355 [11, 33, 55; so easily remembered], is correct to the sixth decimal. However, he assumes an equatorial degree to be $62\frac{1}{2}$ Italian miles, or 15.625 leagues, and thus finds that in latitude 34° it would measure about $52\frac{1}{2}$ miles, which is nearly true, for it would be exactly $51^m 815$.

At 60 geographical miles to a degree, in latitude 39° , the degree of longitude is $46^m 63$; in latitude $41^\circ 30'$, $44^m 94$, and in latitude 44° , $43^m 16$.

It will be observed that he assumes to have sailed $92\frac{11}{1000}$ degrees from Madeira to the coast of America. On his estimate of $62\frac{1}{2}$ miles to a degree at the equator, and that in latitude 34° a degree will contain 52.22 miles, he makes his voyage to have been 4,804 miles. This is a great overestimate, for there are only $46^\circ 38'$ great circle degrees from Madeira to Cape May. This equals 2,433 of his miles, or 2,796 nautical miles, for the true distance from Madeira to Cape May. He, of course, knew nothing of great circle sailing,† and steered as due west from Madeira as possible, and the storm, with deviations from his course, may have made his voyage perhaps one-third longer, say 3,244 of his miles, or 3,728 nautical miles.

On the chart of 1529, the difference of longitude between Madeira and his landfall is only 63° , therefore much less than this estimate, but no measurement is possible on charts of that projection. However, adopting as a scale the Spanish estimate of 750 leagues from the Canaries to the Windward Islands, the

*Archimedes showed that the proportion was comprised between 3 10-70 and 3 10-71. Verrazano uses the first fraction.

†Pedro Nunez, or Nonnius, the inventor of the scale for reading subdivisions of small lines and arcs, first proved in 1587 that oblique rhumb lines are spirals. Great circle or middle latitude sailing was first introduced in 1638.

The log line invented by Bourne in 1577, was not generally used until long afterwards.

chart would make his voyage half as much more, say 1125 Spanish leagues of $17\frac{1}{2}$ to a degree.

Some correction, therefore, of his estimate was made by himself or by the mapmaker on the chart. This is proved by an inspection of it, for the difference of longitude between the Canaries and Guadalupe is given as 43° , being very near the real difference, $41^{\circ} 11'$. The difference of longitude between Ireland and Newfoundland is drawn as 31° , the truth being $28^{\circ} 04'$.

3. He says that no eclipse occurred during his voyage. In 1523, there was an eclipse of the moon, March 1; total; 8 P. M., Paris time; but in 1524 the only one was February 19, $\frac{3}{4}$ digits, at $11\frac{1}{2}$ A. M. In the position he was then in, this slight obscuration happened just before sunrise and could not be observed. In 1525 there was a total eclipse of the sun, at 3 P. M., Jan. 23, which he would have observed if the voyage had been made in that year. His statement fixes the date of the voyage as of 1524.

He estimated the longitude, as he says, by a reckoning from day to day. As he was, of course, not aware of the strong current known as the Gulf stream, he was carried much more to the north than he expected. The little book he speaks of, which must have been a kind of log-book, is lost.

4. His intention, like that of Columbus, Cabot, Cortereal and others, was to discover a seaway to Asia, and he must have been keenly disappointed at his failure to find a strait leading in that direction. He appears to have heard of Ayllon's voyage in 1520, from his evident desire to make land in latitude 34° , and was well informed concerning Terra Nova, but the unexplored gap offered a last hope for discovery, which was frustrated.

This short passage about Cathay embodies a volume of thought which is left unrecorded. It was a fate that other noble adventurers before and since have bowed to, while the search for a seaway, even an impracticable one, is still a goal for ambitious spirits.

The wonderful tales about the Grand Khan had led Columbus to the discovery of the western Indies, which turned out to be auriferous, and Cortes had lit upon a barbarous empire, whose riches were much exaggerated, making men think that the New World was perhaps the equal or perhaps a part of that fabled Cathay, first described by Carpini and Rubruquis.

It was natural, therefore, to suppose that other rich empires might be found in these regions, and this caused Hernando de Soto, in 1539-42, to seek for one in the vast and unknown land known as Florida.

5. The remarks on Magellan's voyage, if penned in 1524, prove that he was well informed on that subject. The first circumnavigation of the globe was completed by the return of the *Vittoria*, under Sebastian El Cano, September 7, 1522. Peter Martyr at once prepared an account of the voyage, which was sent to the Pope, but it was lost at Rome in the riots of 1527, and no copy of it is now known. The first printed account of it, as prepared by Maximilian of Transylvania, secretary of the Emperor, in the form of a letter, addressed to the Archbishop of Salzburg, dated Valladolid, October 24, 1522, appeared in Rome, November, 1523, and again in February, 1524.

Verrazano, in January, 1524, could hardly have seen this before sailing, but may have read it after his return. Among the various papers taken by him, before 1524, from Spanish prizes, he may have learned of the departure of Magellan, and had, perhaps, conversed with some of the companions of Gomez, and of El Cano.

His expression, therefore, "*that he had calculated the distances sailed by Magellan, from the observations of many navigators,*" proves him either to have been very well informed about that voyage, or else that the appendix was written some time after the date of the letter itself.*

The 300 leagues run northwardly, and 400 eastwardly, along the coast, make up the 700 spoken of at the close of the letter. He does not mean that he sailed 700 leagues along the coast, but that by rhumbs he had estimated the coasts discovered to be 500 leagues, and that his latitudes and departures made up 700.

By his own estimate, therefore, supposing his leagues to mean miles of about 60 to the degree, he had run five degrees of latitude, and about eight degrees (of fifty miles each) of longitude. This is very near the probable extent of his range.

6. By the explorations as far as the Arctic Circle, made by the Portuguese, he alludes to the discovery of Greenland by them,

* Compare, however, with Carlis' letter, who, in 1524, refers to it.

a fact which is now admitted, for Gaspar Cortereal no doubt sighted it in 1500, and it was represented on the early Portuguese charts as *Terra del laboratore*, or *Terra Corterealis*, though this first name is now restricted in its application. We have good reason to believe that Newfoundland, under the name of *Isla Verde* and *Man de Satan*, was known and visited by the Portuguese as early as 1445, and soon afterwards by the Bretons, but that question cannot be discussed here.

Verrazano's speculations on the extent of the New World is the first one of its kind, and as an original suggestion is very remarkable. He does not distinctly aver his belief in the separation of Asia from America, but infers, from the fact that the three great divisions of the Old World are joined together, that America may be also joined to them. By the land of the Southern Hemisphere, he designates the land left to the south by Magellan, which, until the actual doubling of Cape Horn by Cornelison Schouten, of Horn in Holland, in 1619, was considered as a vast continental land, and was represented on maps as extending entirely around the Antarctic regions, in about latitude 50 to 60 deg. south. The Spaniards soon discovered the insular nature of the Terra del Fuego, but did not publish this fact, and Sir Francis Drake, in October, 1578, had done the same, calling its most southern cape *Terra nunc bene cognita*. Schouten's name, however, was the most widely published, and has thus remained attached to it.

XXXV.—EXAMINATION OF THE VOYAGE ACROSS THE ATLANTIC.

He was 25 days making the three-fifths of his voyage or 1200 leagues of the 2000 that he estimated the whole to be, and was sailing due West. This without allowance for currents or deviations from his course would place him in long. 55 deg. on the 11th of February.

From this point he followed a rather more Northwardly course, doing so from a desire probably to avoid the coast explored by the Spaniards, which as he must have known, had reached to lat.

34 deg., for he connects them with his own on the Map. He was also forced, as we shall show, to follow such a course by the Gulf stream, of which he apparently knew nothing.

From long. 55 deg. to the eastern edge of the Gulf stream, which in winter lies in long. 65, on the parallel of 33 deg. 30 min., he may not have drifted much out of his course, though he encountered a gale on the 14th of February that may have driven him to the South of it. But in crossing the Gulf stream from long. 65 deg. to 74 deg., he was exposed, for at least 12 days, out of the 25, which he occupied in running the latter two-fifths of his voyage, to its influence. Its greatest velocity is here about $1\frac{1}{2}$ to 2 miles an hour, but allowing only $1\frac{1}{2}$ miles as its average set, he would have drifted in these 12 days just 360 miles to the Northward. These six degrees would carry him North of lat. 33 deg. 30 min., the point where he probably first entered the stream, and place his landfall in 39 deg. 30 min., as we make it. He must therefore have passed the Bermudas in lat. 35 deg. (they lying in 32 deg. 20 min.) or 160 miles North of them. This is but a moderate allowance for his drift by the Gulf stream, and we do not see how he could have made our coast in a lower latitude.

This Northwesterly drift caused a vessel seeking our coast, with the Pilgrim fathers, a century later, to land far to the North of the point aimed at, and planted on the rocky shores of New England a colony designed to have been established very near the point where Verrazano sighted it in 1524.

The voyage may therefore be summed up as follows.

January 17 to February 11—25 days due West—1200 leagues by his estimate, or three-fifths of whole distance, in fact 1700 geog. miles of 60 to the degree.

February 11, in long. 55 deg., lat. $32\frac{1}{2}$ deg., steers a little N. of W.—on the 14th encounters a storm, February 18th enters the Gulf Stream in lat. $33\frac{1}{2}$ deg., long. 65, leaving it March 4th in long. 74, lat. 39 deg. and making land March 7. The distance sailed since February 11, 25 days, being estimated by him as 800 leagues, probably 1150 geog. miles.

The great circle distance, the shortest possible one between his point of departure and arrival, is 2796 nautical miles, as noted elsewhere, but by the courses he followed, his track, which is

much to the south of that, cannot therefore have been less than 2850 nautical miles, and was no doubt much longer.

XXXVI.—THOMASSY.

Les Papes Geographes et la Cartographie du Vatican. Par M. R. Thomassy. Paris, 1853. 8vo., pp. 140. *Extrait des Nouvelles Annales des Voyages*, 1853.

After an interesting and carefully prepared essay on early chartography and the progress of Geographical knowledge during the middle age, the author describes the topographical frescoes on the walls of the galleries of the Vatican, and in an appendix notices a few of the most remarkable documents of the same kind, preserved in the *Collegio de Propaganda Fide* on the *Piazza di Spagna*. This College was founded in 1622 by Gregory XV, during his two years' Papacy, for the purpose of educating foreign students as missionaries. Its printing office, established by his successor Urban VIII, (1623-44) who caused its present building to be erected, is able to produce books in every known written character.

The geographical documents gathered here are from the collection of Cardinal Stefano Borgia and are collectively known as the *Museo Borgiana*. Mons. Thomassy describes in the appendix to his essay, sixteen of these, including the great bronze enamelled planisphere of the first half of the fifteenth century, of unknown authorship, and of which an account was published by the Cardinal in 1797.

The next article, pages 112-115, describing one of the drawn maps, is the one that interests us especially. We extract the chief points relating to it.

"This planisphere is on a roll of parchment (three skins joined) 2 metres 60 centim. long, and 1 metre 30 centim. wide.

"It is a marine chart, bearing on its back in a modern hand the meaningless title: *Carta pecora di una gran parte del mondo*" (a parchment map of a great part of the world).

"On the upper part one reads *Hieronimus de Verrazano faciebat*."

"The date may be deduced from the following inscriptions. Under the word *Nova Gallia sive Jucatanet*, is found: *Verrazano sive Nova Gallia, quale discopri, 5 anni fa, Giovanni da Verrazano fiorentino, per ordine, e commandamento del cristianesimo re di Francia*."

Mr. Thomassy adds that, "as the letter in Ramusius is dated 1523 or 1524 this would give to the Map the date of 1528." (The date of the letter is however, most distinctly 1524, which places the Map in the year 1529.)

"The prime meridian passes near the Island of Ferro, which is in lat. 27° and some minutes."

"The equator passes through the Island of St. Thomas, the straits of Sunda and the mouth of the Amazon River."

"This Jerome, author of the map, must have been a relative and very probably the brother of Giovanni, who wrote the letter to Francis I."

He quotes, to support this opinion, the letter of Annibale Caro, elsewhere mentioned, and says that Tiraboschi speaks of this brother, otherwise unknown, not naming him, but as one well versed in geography.

A copy of the scale is then given, and he proceeds to describe some features of the Map.

"At *c. de Bretton* the shield and ermines of Brittany are seen, and North-east of this, *Terra laboratoris*. *Questa terra fu discoperta da Inghilesi*, the most northern point in this direction."

"In the East it ends with the *Insule Meluco and Borneo*." (Burnei.)

"On the meridian of the Moluccas is seen the Gulf of Canton, with the legend: *In questo Golfo di Caitan, stan le navi che vengono d'India, a queste regioni, del Gastaio*." (Of Cathay.)

After indicating some European and African points, he closes his description thus :

"Terra del Fuego is vaguely drawn as the beginning of an extensive Australian continent. All the western shores of North America are wanting" (except about the Isthmus) "and are designated only with *TERRE INCOGNITE*. Finally Greenland is not shown at all, in which point this Map differs from others of this date."

XXXVII.—DESCRIPTION OF THE MAPAMUNDI OF HIERONIMUS DE VERRAZANO.

The interesting mapamundi drawn by Hieronimus de Verrazano, which is now preserved in the Museo Borgiana at the Collegio de Propaganda Fide in Rome, and to which attention was first drawn by Mons. Thomassy in 1852, is not accompanied by any

record of its history prior to its ownership by the late Cardinal Stephano Borgia. It is remarkable that the Cardinal himself should not have noticed its value as a document confirming the discovery of a portion of the American coast by an Italian, for he was an intelligent judge in such matters, and the owner of several other geographical monuments, of which two have been specially described.

One of these was a Cufic celestial globe of copper, made in the year 622 of the Hegira (A. D. 1225), which was described by Simon Asseman in 1790. The other was a bronze circular table, twenty-seven inches in diameter, with a map of the world engraved in *niello*, made at the beginning of the 15th century.* The Cardinal, in 1794, corresponded with the learned De Murr, author of a life of Martin Behaim, on the subject of this map, and his nephew, Camillo, printed an account of it, for private circulation, with a full sized copy of it, in 1797. It was again described and copied by Heeren in 1808, and Santarem in 1852, and several treatises on it in manuscript are preserved in the Museum.

As regards the time when the Cardinal became the owner of the Verrazano chart or whence he procured it, we can furnish, as above stated, no information. The first notice of it appears in a letter to De Murr, dated January 31st, 1795, in which the Cardinal informs him that besides the two geographical monuments above mentioned, he had thirteen maps on parchment, most of them nautical charts, of which four were mapamundia. Among these he enumerates a few, one of which he speaks of in these words: "*Altra porta il nome de Girolamo Verrazano, fratello di Giovanni, che scopri una parte dall America Settentrionale, e cosi altre.*" The Cardinal here assumes that the two Verrazanos were brothers, perhaps from the passage in the letter of Annibale Caro. He must have mentioned this map in another letter to De Murr, who, in giving a list of the Cardinal's maps, attaches the date 1528 to its title. The first notice of the existence of the Verrazano map was published at Gotha, in 1801, in De Murr's revised edition of his life of Martin Behaim, which was translated by Jansen and published at Paris in 1802.

* See Santarem: *Cosmographie du Moyen Age*, III, 247.

The Cardinal was secretary of the Propaganda for eighteen years, from the year 1770, and became a cardinal in 1789, dying at Lyons in 1804 (while accompanying the Pope to Paris), at the age of 73. His palace at Velletri, on the Via Appia, a few miles south of Rome, was a complete museum, in which he had gathered together works of art of every description, which were freely exhibited to visitors and students. He bequeathed the collection to the Propaganda, but it does not appear to have been immediately removed to Rome, for Lord Kingsborough refers to a valuable Mexican pictorial manuscript which he had copied, by Aglio, about 1828, for his great work, as being still in Velletri.

We cannot here furnish farther biographical details concerning this amiable and accomplished prelate, which may be found in the eulogies of him published shortly after his decease.* Of these, one may be cited as containing a short description of his museum, in which there is a second mention of the map we are describing. This was penned by the learned Cancellieri, author of the *Notizie di Colombo*, † who, in 1802, was appointed director of the printing office of the Propaganda, and it was printed in several forms in 1805. We have not been able to consult this eulogy, nor one of the same date by the P. Paulino de S. Bartolommeo, his intimate companion for fourteen years, but it was doubtless the first of these that contains the notice in question.

The next reference to it is to be found in Millin's *Magazin Encyclopedique* (Vol. 68) for March, 1807. Millin, the learned archæologist, corresponded with the Cardinal (who was a contributor to his periodical); and published a short biography of him, chiefly made up from the above eulogies, at the close of which (page 25), he enumerates a few of the most precious articles contained in his museum. Among these, four maps are named, the third being "*de Jerome de Verrazano l'an 1528.*" These short references appear to have passed unnoticed, and the map was left in repose for another half century, until examined and briefly described by Mons. Thomassy in the *Nouvelles Annales des Voyages* for 1852. ‡

The map is on three sheets of parchment, and according to

* See also the *Biographie Universelle*. † *Roma*, 1809. See note page 187.

‡ Lelewel. *Géogr. du Moyen Age*, 1852, Tom. I., § 256, copies De Murr's notice of it.

Mons. Thomassy is two metres 6 cent. long, and 1 metre 30 cent. wide, or $102\frac{1}{2}$ by $51\frac{1}{2}$ inches, that is, the length is twice the height. It is well preserved, being somewhat stained near both ends, but no part of it is indistinct. The drawing is sharp and clear, though the reduced photographs before us have not been taken with sufficient care to enable the smaller text to be deciphered. The larger photograph is $\frac{1}{10}$ the size of the original chart, but is very indistinct; the smaller one is $\frac{1}{100}$, and is in places as sharp and distinct as could be desired, but in others is quite illegible. On this account we cannot undertake a close analysis of this interesting document, in order to fix its date more positively, or to ascertain what materials were used in compiling it.

We can, however, from the chart itself, determine some points that connect it with our navigator. It is the work of an Italian hydrographer of considerable skill, and is in many respects superior, as a work of art, to any Spanish or Portuguese chart of that time. The designer had before him materials such as no hydrographer up to that date had been favored with. His draught of the Spanish coasts of America appear, however, to be from a different pattern than those used by Diego Ribero in his chart of 1529, but in many other respects it is much in advance of it. His work seems to include and embody discoveries made by sea up to the year 1524, the date of Verrazano's voyage. No chart outside of Spain for many years after this date contains what is to be found here. The voyage of Magellan, the discoveries of Cortes, the opening of the East Indies by the Portuguese, are all laid down in a way that is surprisingly accurate, and lead to the conclusion that no one but Verrazano could have prepared it. He had captured charts from the Spaniards and Portuguese, had conversed with the sailors of the discovery vessels, and was thus better prepared than any navigator of his day to attempt a general *resumé* of the state of cosmographical knowledge then existing in Europe.

The projection of the map is the simple cylindrical square one, in which all the degrees of latitude are made equal to each other and to the equatorial ones. * This is the earliest marine projec-

* For an interesting and careful analysis of the projection of geographical maps, see *Davies*; *Bulletin de Géographie*, 5th series, Vol. V, 1868, p. 357.

tion of which we have any record, and was used by Mediterranean sailors in the oldest known charts, which, however, do not reach back of the early part of the 13th century. Had the simple conic Ptolemaic projection been adopted by the constructors of such charts many nautical mistakes would have been avoided, and navigators would have made shorter voyages from point to point.

Like most of the maps of the world at that time, it has the equator drawn below the middle of the map, and shows 90° of latitude north and 64° south of it. In breadth it represents about 320° of longitude. Its western, or left, side is 45° west of Temistitan, or the city of Mexico, and its eastern, or right, side is 35° east of the peninsula of Malacca. There is no graduation for longitude, but the meridians that cross the centres and sides of the two great circles of windroses appear to be drawn seventy degrees apart.

Until quite a recent date all nautical charts were covered with a net work of cross lines radiating from windroses, the centres of which were generally symmetrically arranged to suit the taste of the designer. On this map there is one great central rose in N. lat. 16° deg. in the western part of Africa. Two great circles of roses, 140° deg. in diameter, touch each other at this point, each circle bearing fifteen other and smaller roses, equally spaced around their circumference. From the centres of each great circle and of each rose there are drawn thirty two lines to each point of the compass, and these lines are prolonged to the margin of the Map. This construction was intended to facilitate the pricking out of a ship's course on the chart and save the use of a protractor.

The lines that in this manner appear parallel and at right angles to the equator are not, as in modern charts, parallels and meridians. The tropic lines appear with their names on the map. The meridian that passes through the third roses from the great central one, on the left great circle, is divided into degrees of latitude of equal size, each one numbered. Close to the upper margin and to the left of this graduated meridian there is a small scale under which is a legend explaining that from point to point there are ten leagues, which are each of four miles. The scale which is equal to 18° deg. of latitude in length, is subdivided into

six parts, each part having four divisions or points. This graduated meridian lies about three degrees to the West of Iceland and of Africa, passing between the Canaries and Cape Verd Islands. It is about twelve degrees east of Cape St. Augustine in South America. In Ribero's map of 1529, and the one believed to be by Hernando Colon of 1527, as also in others, it occupies the same position.

Near the upper margin and above the coast explored by Verrazano, there appears written in small Italian capitals HIERONIMUS DE VERBAZANO FACIEBAT, the last word being below the others. There is no date written anywhere, but it is assumed to be of 1529, from one of the legends on the coast mentioned below.

Europe is well represented, excepting Scandinavia, which last is copied from the Ptolemies of that date. Africa is remarkably well drawn and its coast is fringed with closely set names and Portuguese shields. On Madagascar we read *INSULA SANCTI LAURENTII* and a legend near *Socotra*. The Red Sea is nearly as large as the Mediterranean, but without a fork at its northern end. The Nile takes its source south of the equator from two lakes. The Persian gulf is nameless and Hindostan with Ceylon, are shown more correctly than on any map of the time drawn outside of Portugal. *CAMBALV* is on the west bank of the Indus, at the mouth of which there is a legend of four lines. At the base of the peninsula appears *REGNO DI NAESINGA*,* described at great length by Duarte Barbosa in 1516. Near the West side of the mouth of the Ganges appears *Turnasari* (Tenasserim). Further south a church with a steeple, and on the point of the peninsula *REGNO DI CALICUT*. On the island is *ZAILON INSULA*, but a legend near it is illegible, as well as the coast names on the peninsula. The Maldive Is. are indicated, but without a name. There are no Portuguese shields on the coasts of India or Asia.

The peninsula of Malacca is represented as broader and longer than the Indian one, ending close to the equator, and in longitude 150 E. of the above mentioned graduated meridian, or 180 deg. E. of the mouth of the Amazon river in Brazil. At its base is *REGNO DI BONGALA*, (Bengal, much displaced.) Further down a

* Probably from *Nahry Sankar*, a province of Thibet, once supposed to be the place where many rivers of Hindostan had their source.

huge mountain under which is the legend, *In questo montagna Se trovano e diamante*, then REGNO DI PEGU, and *qui se trovano Rubis in gran quantita*, then a city and under it MALACCA and a long legend, of which we can only decipher the words *conquista i portogesi * * * dispaglohi*.

There are a few coast names on the west and some unnamed islands in the SINUS GANGETICUS. Southwest of Malacca is a very large Island with its western shore ill defined, on which is TAPROBANA INSULA SIVE SAMATRA, with no coast names. The eastern coast is quite well represented.

S. E. of Sumatra two smaller nameless islands appear, faintly traced, and a group of very small ones South of Malacca. East of the two unnamed islands, which are S. of the equator, there is a square island, smaller still, on which we read TIMOR, and there are two large banks with small islands E. and N. of it. N. E. of these, on the equator, is a group of seven small islands marked *Insule malokes*. East of these is a large and faintly defined island marked BURNEL. North of these last, and nearer to the coast, is an unnamed group intended perhaps for the Philippines.

The East coast of Asia is from the Ptolemies of that date and it would be useless to give the names of the provinces indicated, except that of LACINA and to observe that a legend of four lines appears in a gulf North of it, which according to Thomassy reads *In questo golfo di caitan stan le navi che vengono d' India a queste regioni del Gastaio*.

These data show that the designer of the Map had drawn his information from the most recent Portuguese and Spanish sources, and circulated it in spite of a prohibition by these nations against its publication under penalty of death.

The following dates will confirm the above statement. Lopez Sequeira reached Malacca in 1509, and Alfonso de Alboquerque took it July 5, 1511, and sent expeditions to Siam, Tenasserim, Cingapoura &c. Anton de Abren reached the Moluccas, Pegu was heard of, and Sumatra and Java were visited in the same year, but the southern coasts and general conformation of these last were not known for some years afterwards. Simon d' Andrade in 1513, first visited the Maldives, and not until this same date did Portuguese vessels navigate the Red Sea and Persian gulfs.

Borneo, already mentioned by Ludovico di Varthema as *Bornei*,

was first reached in 1513, but was not fully explored. On the Map it is placed east of the Moluccas. In 1516 Ferdinand Perez first visited China at Canton by sea, and sent an embassy to the Emperor. In the same year Portuguese vessels sailed to the Ganges and in 1518 entered Bengal.

Luzon of the Phillippines is spoken of in 1511,* but was probably not visited till later. Celebes, which must have been passed in going to the Moluccas, though known to Barbosa, was not officially examined until 1525 by Garcia Henriques. New Guinea was discovered by Don Jose de Menezes in 1526. The Spaniards soon began their explorations also, and Verrazano as we know, had heard of the return of El Cano, but the map contains nothing in this portion of it which would appear to have resulted from them. Nor does it contain any discoveries made by the Portuguese after 1520.

There is nothing in the Eastern portion of this Map to prove that Verrazano had been there in person, but we cannot affirm this positively. It seems however, in regard to this portion alone, to be a very remarkable document, and deserves close study on the part of those who can best appreciate its value. In many points it is not as full as Diego Ribero's mapamundi of 1529, as described by Sprengel in 1795. Both Verrazano and Ribero appear to have used Odoarte Barbosa's description of Southern Asia prepared in 1516, of which several manuscript copies seem to have been in circulation, though the partly incomplete Italian translation given by Ramusius in his first volume, was its first appearance in print. Barbosa had been to the Moluccas by way of the Cape of Good Hope, and accompanied his brother in law Magellan, on his voyage in the other direction. He was killed by the side of Magellan at Matan, being the first man who had *actually circumnavigated the globe*.

Turning to the Western portion of the Map, that is the part west of the graduated meridian, there is much to interest an American, and were the photographs distinct, and the coast names at all legible, we might examine it in detail, and compare

* Barbosa does not seem to have heard of the Phillippines, though he mentions *Ohanfa*, which corresponds to Formosa, and the *Loquoa*, or Lieu-choo Islands.

it with the well known chart of Diego Ribero of the same date. The coast lines vary sufficiently from the known Spanish charts of that date, to lead one to suppose that Verrazano copied from a pattern map unknown to us.

In some parts it is more correct than Ribero's, but a fatal error, originating perhaps with Columbus, deforms the tropical portion of it and affects the parts adjoining these. This error arises from placing the Islands of Cuba, Espanola and Jamaica, north of the Tropic of Cancer. The whole of the Gulf of Mexico is thus displaced about six or seven degrees in latitude too far northwardly. The northern coast of Cuba is more than seven degrees north of the position assigned to it by Ribero, and by modern geographers.

The northern coast of South America at Santa Marta is over five degrees out of place, but it declines thence rapidly to the Eastward, so that Trinidad is only two degrees from its true position. From this point the coast resembles Ribero's map, both of them being deficient in not exhibiting the prominence formed by the Guiana's. The mouth of the Amazon is directly under the equator. The *Bahia de todos los Santos* is placed, as it ought to be, at the bottom of a shallow but extended depression of the coast line, not indicated in Ribero's map. The mouth of the La Plata river is correctly shown under lat. 35 deg. The Strait of Magellan is indicated, but not with the same accuracy as in Ribero, and the south shore of it is faintly drawn out towards the East and South east, two thirds of the way towards the graduated meridian, as an Antarctic continent. The longitudes vary but little from Ribero's chart.

There are numerous coast names along the whole continent, beginning at the strait, where we read *C. della victoria*, and so on, but many of them differ from those given on the Spanish maps. Four Portuguese shields are on the present Brazil, which is marked *TERRA SANCTE CRVCIS* and *VERZINO*. Four small, named Islands are in the ocean, to the east of it. A legend west of the La Plata reads *Hic Hispani gigant H * ** ; appearing incomplete.

In the interior of the continent is a range of mountains, running east and west, and under them *MUNDUS NOVUS*. The northern portion, west of the Marañon, has three Spanish shields.

Under the coast of Caraccas is *TERRA AMERICA*, beneath it *DABAIBA*, and to the right under the Guiana's, and near the line, *PARIAS*.

A curious feature of the map is a western coast line, completing the continent from the strait to the isthmus, along which appears *TERRA INCOGNITA*, the last word being repeated. There is no trace of Peru; the name of which, with a long legend, is found in Ribero's but not on Colon's chart of 1527.* Johann Schoner on his globe of 1520 had represented a Western coast to the Southern continent, which was also mere guess work.

We cannot decipher the whole series of names along the coast, but have read enough of them to induce the belief that they were not taken from the same *padron* or pattern as Colon's and Ribero's maps of 1527 and 1529, which were prepared as standards for the use of Spanish sailors. The details of the coast line vary also from the above charts, and sometimes are more correct than either of them, but we cannot here compare them without occupying too much space.

IVCATANA is represented, as on many maps of the time, as an island, though its southern coast line is not quite closed. In Colon's and Ribero's maps it is made completely insular, but in the last separated by a narrow strait only from the mainland.

The isthmus of Darien is made too wide, and the Pacific outline of it seems to be a random draught, without names or legends, and the *Mar del Sur* bears no title. In the charts of 1527 and 1529 the names are numerous, the Pacific coast lines ending in both of them at the Sierras de Gil Gonzales Davila, the limit of the explorations of this gallant explorer in 1523, in N. lat. 16°, being the present province and Sierras of Soconusco.

Verrazano's coast line, however, is boldly continued Westwardly, Northwardly, and then Easterly, ending at his supposed isthmus north of Florida. A large *crescent-like* land is thus formed larger than Europe, and which bears the name *NOVA HISPANIA*. The parchment is damaged along the westerly part of this land, but the line can be traced, and *TERRA INCOGNITA* is twice inscribed along its shore. Seven Spanish shields are drawn

* A province or rich Empire called *Biru* was described to the Spaniards in 1522. See Herrera III. V. XI. p. 169.

on this land near to and following the easterly coast line. *Cozumella* is shown, but not the Guanasa Islands. Along the isthmus, beginning West of Yucatan, is the legend *CULVACANA*. Although partly misapplied, it is remarkable that this name should appear on a map made by a stranger, for it is not to be found on the two Spanish maps above mentioned. This, with other indications, show that Verrazano was thoroughly well informed about the movements of Cortes, having no doubt found charts and despatches in the prizes he captured, besides conversing with men on their way home from Mexico. The want of names along the shores of the Mar del Sur is explained by his want of information touching the explorations of Balboa, Davila and others, accounts of which had not fallen into his hands.

The coast of the Gulf, round to Florida, and to the isthmus north of it, is lined with names, which are almost all illegible. In the interior of New Spain, and in the same latitude as the north side of Cuba, a large city appears with the name *TEMISTITAN*, the earliest name by which the City of Mexico was known. A little below is *GALATIA PROVINCIA*, showing that Verrazano was better acquainted with his Bible than with the inland geography of Spain.

The outlines of the Gulf are remarkably accurate for the time, far better than the tracing which accompanies Francisco de Garay's Cedula of 1521, as given in Navarrete's *Coleccion*, Vol. III. They are even more correctly given than on Colon's or Ribero's maps.

The greater and lesser Antilles, or the Leeward and Windward Islands as sailors call them, are very correctly drawn, though the first are placed much too far to the north. The last are entitled *INSULE DI CANIBALI*, and the first *ANTILIE INSULE*. About twelve names appear on the lesser Antilles. On the greater ones we read *ISABELLA SIVE CUBA INSULA*, *ISPAGNOLA SIVE SANCTO DOMENIGO*, *Iamaica*, *S. Ioannes*, this last appearing very faint on the photographs. The Bahamas are nameless. The Bermudas are not shown, although known to the Spaniards before 1511, since they appear on the map in the first edition of Peter Martyr's first Decade of that date.

The Peninsula of Florida bears the inscription *TERRA FLORIDA*, Verrazano restricting it to this only, while the Spaniards applied

this name to all the land north to Bacalaos. The outline of the peninsula is not like Ribero's, but is made square at the end, as found in some older charts, and its southern termination is in $33\frac{1}{2}$ deg. N., of his scale. Ribero has it correctly in lat. 25 deg. N. This error, derived in part from the false position assigned to Cuba by Columbus, influenced and no doubt puzzled our chartographer, who in the very portion of the Map most interesting to us, has been forced to alter the draughts supplied by Giovanni, and thus deformed the general bearings of the coasts explored in 1524.

The coast names cease near the westerly base of the peninsula, and reappear at its easterly base. Here are seven coast names almost illegible, and then follows the isthmus, which no doubt marks the land fall of Giovanni in 1524. To the right of this we read *Dà questo mare | orientale si vede | il mare occidentale. | Sono 6 miglia di terra | infra l'uno a l'altro. |* . (From this oriental sea is seen the western sea. There are 6 miles of land between one and the other.)

This isthmus is about two degrees of latitude long, and its western shores decline respectively to the West and to the North. The southerly extension runs parallel with the shores of the Gulf of Mexico, some five degrees of latitude distant from it joining the imaginary westerly boundary of Nova Hispania above mentioned, while the other shore curves to a due northerly course and terminates in lat. 65 N.

This western sea is nameless, though it appears on many subsequent charts as the *Mar di Verrazano*. As there is not a word about it in the letter of July 8th, 1524, all that relates to its appearance on the chart must be conjectural.

Since there are none but Spanish names south of the isthmus, it is very probable that the new explorations of Giovanni begin at this point. Another feature on the Map confirms this view. Along the coast from this point North are drawn three square standards whose staffs rest on the coast, the first one resting on the north end of the Isthmus. The second one rests on the point where Verrazano made a fortnight's stay, and the third one probably indicates the point where he left the coast. These flags are almost black in the photographs before us, but there appears

to be a circle of perhaps *fleur de lis* on them. In the original they are probably colored blue.

This Isthmus, which Verrazano meant to be in lat. 34 deg., is in lat. 42 deg. according to the chart before us, and in restoring the true draught of Verrazano, the scale of latitudes must begin from this point as 34 deg. N.

For the courses from this point to Bacalaos, we must refer to the enlarged sketch of the chart, copied as best we could from the photograph at our disposal. At first, after turning a cape near the Isthmus, the coast has a Northeasterly trend past one river, probably Barnegat inlet, to a river, which we believe is meant for the Hudson. Thence it runs E. N. E. returning suddenly North for a short distance. This is probably intended for Long Island. At this point there appears to be a deep indenture of the coast, left open, which is doubtless a representation of Long Island Sound and the Thames at New London.

Beyond this the land again trends Easterly, and there appears a broad promontory, probably the result of considering Fishers Island and Point Judith as united, and then we find a deep curve inwards and northwards with three deep bays and a triangular Island off the coast in the bight of the curve, placed very like the I. of Rhodes, and west of the bays. The Island is distinctly named *Luisia* or *Luisa*, after the Mother of the King. The indentures represent no doubt the three entrances of Narragansett Bay, where Verrazano made a stay of fifteen days. Here another flag is placed.

East of this the coast drops a little to the Southward, and runs out in a long point represented by dots, and on which we read *arenosa punta*, signifying a sandy cape. This point is probably intended for Nantucket shoals and Cape Cod taken as a whole, and as a first attempt to represent this striking feature of our coast is most remarkable. Neither Estevan Gomez, who, in the following year, traced this coast from North to South, nor any subsequent navigator who has left any record of his voyage, describes this prominent peninsula so as to positively identify it, until Champlain's time. After turning Cape Cod the coast is represented with a general trend to the East-North-East, with no important projections or depressions, excepting one river with a wide mouth, and a bay just east of it, forming a rather wide

estuary, which may well represent the Kennebeck or Penobscot Rivers in the present State of Maine. The islands which characterize the broken coast line of this State, and which number over three hundred, do not appear on the map, although Verrazano says in his letter that he counted thirty-two in the space of fifty leagues. This statement, with the account of the rugged shores seen here, identify the coast as that of Maine, and could hardly have been invented by one who had never sailed along these shores.

A little East of this larger river appear two small ones entering a shallow bay, and just east of the second one we read distinctly *monte*. These features may be intended as a rough representation of the apparently double mouth of the Penobscot, with Mount Desert just east of it.

On another river, further on, we read *Vendome*, and the fifth name east of it is either *aranbega* or very much like it, the initial *a* and final *bega* being quite distinct. There is no river near it, nor anything to distinguish it from the other coast names, and the mapmaker may have inserted it here, copying from some draught now lost. We have spoken of *Norumbega* in another note, but would remark that this seems to be its first appearance on a map, and that not until 1539 did Pierre Crignon describe this part of the coast under the name as last written. Back of these notices no mention of such a name for a land river or town has been found, except that Peter Martyr, in his seventh Decade, enumerates *Arambe* as one of the provinces visited by Ayllon in 1525, but he was speaking of places in Chicora (Cherokee), much to the south of this one. The resemblance of this name to the one of Crignon's deceived Hakluyt at a later date, who combined them to form the word *Arambec*, which he identifies with *Norumbega*. As the seventh Decade of Martyr was not published until 1530, Crignon could not have derived it from that source.

The third French flag is placed on the River *Vendome*, probably indicating the point of Verrazano's departure from the coast, which would thus be near Mount Desert, or a few miles north of the parallel of 44° N. On his return he, no doubt, procured a chart of the coasts of the land of the Bretons, and of Terra Nova, and thus completed his tracing of our coast.

Over the three flags appears, in capital letters, the inscription NOVA GALLIA | SIVE IVCATANET | and the following legend: *Verrazano siue noua gallia quale discopri | 5 anni fa Giouanni di Verrazano fiorentino | per ordine et comandameto dal Cristianissimo | Re di francia |* (Verrazano or new Gaul which was discovered 5 years ago by Giouanni di Verrazano the florentine by the order and command of the most Christian King of France.)

This is the only clue to a date for the chart, which cannot have been drawn later than 1529. Verrazano, in his letter, does not propose the name *New France*, but no doubt, did thus apply it shortly after writing to the King. How the name IVCATANET came to be applied to it would be difficult to answer, and we cannot discuss that question here. The third name, *Verrazano*, was probably a suggestion by the draughtsman, the relative of the explorer. If Giovanni had died before 1529, the fact of his demise would most probably have been recorded in this legend.

There is little to add to complete our notice of the map. There is no indication of the Bay of Fundy, or of the peninsular character of Acadia. The name of Cape Breton can be distinctly read, and there is a broad opening drawn between it and the land east of it. In this opening there is an island, and the words *G. de S. Ioanni* and *I. de S. Ioanni*, just above which appears the shield of Brittany.

These names recall Cabot's Island of St. John, discovered by him on the 24th of June, 1497, and distinctly laid down on his Mapamundi of 1544, although he there seems to have raised it slightly in latitude, perhaps because he took Cartier's group of the Magdalen Islands, which he places just east of it, to be a part of his own Island. If laid down on the map before us from Cabot's data, it would be the first known indication of his discoveries. If this were so, however, we ought to find the Gulf inside, in which he got imbayed on that voyage, and the ice-bearing Straits of Belleisle, by which he left it to return to Bristol.* It is not known who gave to this Gulf the name it here bears, nor that of *Golfo Quadrado*, by which it was known to Gomara in 1552. The southern entrance into the Gulf has no name at this day, and *Cabot's Strait* would be a very appropriate one for it.

* See Hist. Mag., N. Y., Vol. III, Ser. II, p. 129.

East of this opening is a land entitled *TERRA NOVA SIVE LE MOLVE*, bearing along its easterly coast the usual well-known names, *C. raso*, *C. de spera*, *bachalaos*, *Illa de San Luis*, *Monte de trigo*, *Illa dos aves*, etc., of Portuguese, Basque and Breton origin. The southerly coast bears no names. It is uncertain who first gave the name *Terra Nova* to this Island, which first appears nameless on a map made by Pedro Reinel,* without date, preserved in Munich. We confidently believe that this map, or the original of it, was drawn for Prince Henry the Navigator, who died in 1460, for it contains his possessions only, beginning with the newly found Cape Verd, in Africa. Back of the land meant for *Terra Nova* are painted two shields, one bearing the arms of Portugal, five white balls on a blue ground, and the other a red Maltese cross on a white ground. The Prince was the Grand Master of the Portuguese Order of Christ, which, in that kingdom, succeeded the Order of Knights Templar, after it had been uprooted elsewhere. This ascription of the land to the Prince, and the total absence of any trace of the Spanish discoveries in the Atlantic after 1492, would seem to give a pre-Columbian character to this map, which entitles it to much more notice than it has hitherto received at the hands of Dr. J. A. Schmeller and F. Kunstmann, who have described it as not anterior to the supposed discoveries of the Cortereals, in 1500 and 1501. Reinel's map bears a trace of even an earlier knowledge of Newfoundland, for in the same parallel, but further eastward, there is drawn a large island, with a bank or shoal around it, which is named *I verde*.

We cannot pursue this subject now, but a comparison of Verrazano's with Reinel's map will prove that the former was copying the latter in this portion of the map. On the map of Juan de la Cosa of 1500, drawn before Gaspar Cortereal's return from his first voyage, we find an *Y. Verde* in a similar position, as shown on the copy of it as given by Humboldt,† though on Jomard's fac-simile it is named *S. Grigor*. From these and other indica-

* Pedro and his son Jorge were in the service of Spain in 1519, as map-makers; *Navarette Coll.*, III, 155. A Pedro Reinel is mentioned, in 1487, by Barros, Dec. I, liv. 8, cap. 12.

† *Examen Critique*, Vol. V, and Ghillany's *Behaim*. The name, however, will probably be found on the original map, now in Madrid.

tions we are led to believe that Newfoundland, under the name of *Isla Verde* or *Bacalaos*, and others, was known to fishermen, if not to geographers, long before Cabot's time. *Bacalaos*, the Iberian name for the codfish, would be translated by the French *Molue*,* from the Latin *Molva*, and thus it appears on Verrazano's map.

North of Terra Nova there is a broad but nameless estuary or opening of a strait, separating it from a great peninsular land, whose broad southern termination, in lat. $59\frac{1}{2}^{\circ}$, is east of and opposite to the north end of this last, while its easterly outline runs towards the North, ending in lat. 76° N. On this land, the map being reversed, we read *TERRA LABORATORIS*, and with the map upright, the legend "*questa terra fu discoperta da inghilesi*," and over all a shield bearing the cross of St. George.

The Strait is no doubt meant for the *Rio Nevado* of the Portuguese maps, and is probably the representation of the ice loaded current separating North America from Greenland. One of the Cortereals appears to have sighted Greenland, not recognizing it as the Greenland of the Northmen, which perhaps they had never heard of, and it has probably been added on Reinel's map after 1500, but without a name, just as Verrazano has it here. At that time Greenland was supposed to be connected with Europe, and this *Terra laboratoris* of our map is a Mapmaker's attempt, and perhaps a successful one, to locate the land from which Cortereal took his gloves in 1501. The true position of the coasts seen by the Cortereal's remains a problem, which can only be solved by the discovery of further documentary evidence. Jerome was not well informed when he attributes the discovery of this land to the English. He was perhaps endeavoring in this instance, to bring in the shadowy discoveries of Sebastian Cabot.

This completes our sketch of the Verrazano map of the World, which we regret to have been unable to decipher more completely owing to the imperfect copies of it at our disposal.

* The French *Morrhue* has a different root, although it is synonymous with *Molue*.

XXXVIII.—CHARTS AFTER VERRAZANO.

Dr. I. G. Kohl in the first part of his History of the discovery of the East Coast of North America, &c., published by the Maine Historical Society in 1869, Chapter VIII, treats of the voyage of Verrazano in much detail, and gives notes on several charts which seem, as respects the East coast of the United States, to have been based on one drawn by that navigator. He had not however been able to procure a copy of the one seen in Rome by Mons. Thomassy, which he regrets, while mentioning it in a note at page 290. His remarks on Maps which probably were in part constructed from it, are so full that we can add but little to them, although he had not the advantage of being able to consult the original.

We must observe however that we cannot find one chart made after 1524, on which our coast is represented as on the one before us. The only feature which Mapmakers seem to have noticed and copied was the Western sea separated by an isthmus from the Atlantic. The coast however that he explored was always copied from Spanish charts containing the surveys of Gomez and others, which appear to have been spread over Europe shortly after they were prepared. The Spanish Maps remained the sole authority for the outlines of our coast from Florida to Nova Scotia until the English in 1583 began their settlements in Virginia.

Jacques Cartier and Jean Alfonse must have prepared charts, now lost, but the Gulf of St. Lawrence and Newfoundland were represented correctly soon after their explorations. They were perhaps less ambitious than Verrazano, and did not construct a Map of the World in order to show their own limited explorations. Had our navigator left a chart of his own discoveries only, it would have perhaps attracted more attention among geographers.

Most of the charts after 1524 which show the Western sea, call it Mar de Verrazano and the land is sometimes called *Verrazana*, but after 1583 his name disappears from every chart. One of the last of this kind was made by Michael Locke in 1582. (See Hakluyt's *Divers Voyages* 1582. Rep. by Hakluyt Soc. 1850.)

It is noteworthy that the narrow isthmus which is said, on the

chart before us to be only five leagues wide, was never sought for by any other explorer. It was a *strait* that was desired, one that all nations could navigate and that would shorten the way to Cathay and the Moluccas.

The first published Map containing traces of Verrazano's explorations is in the Ptolemy of Basle 1530, which appeared four years before the French renewed their attempts at American exploration. It shows the Western sea without a name, and the land North of it is called *Francisca*.

In Bordone's *Isolario* of 1528, fol. vi, verso, is seen a map with a sea west of Labrador, with a strait at the height of the Azores leading into it, probably all guess-work.

Several geographers and chartographers such as Ruscelli and Agnese, show the Western sea on their Maps, and Dr. Kohl carefully enumerates those he has met with, but the most interesting document of the kind is probably the copper globe of Euphrosynus Ulpianus of 1542, found by the late Buckingham Smith in Italy, and now in the possession of the New York Historical Society. It contains the only allusion to Verrazano's discovery recorded on a Map, previous to the publication of the letter in Ramusius of 1556. The earliest notice of the voyage as marked elsewhere, is in the account of Norumbega of 1539, supposed to have been written by Crignon.

Mr. Smith in his *Inquiry, &c.*, read before the New York Historical Society in October, 1864, mentions this globe, and gives a copy of the part that contains the North American coast. An inspection of this portion of the globe will at once show that the author had seen neither the letter of 1524 nor the chart of 1529. He must have learned of the discovery elsewhere and from a source unknown to us. He represents the Western sea, nameless, and North of it appears the legend "*Verrazana sive Nova Gallia a Verrazano, Florentino, comperta anne sal M. D.*" There is an unfilled blank after the date, proving that the author had not seen the letter of 1524. Of the names along the coast there are some which may date from Verrazano's voyage, but as the photographs before us contain no legible names we cannot venture to assert their identity. The names "*Go de S. Germano and Lungavilla*," (St. Germain and Longueville) on the globe, are decidedly French and we believe appear on no other Maps.

Normanvilla may be a translation of *Norumbega*, and if so is interesting as being its first mention on a map.

The chart of 1529 was probably preserved in England or on the Continent for some years, and was then inspected by geographers, but no close copy of it appears to have been made. About the middle of the 16th century it seems to have disappeared, having probably been sent to Rome, where it has lain dormant and unnoticed for three centuries, until noticed by Mons. Thomassy in 1852. Had it remained open to public examination Verrazano's name would have not required our tardy recognition of his exploit as an explorer. We must however thank the preservers of this chart for having rescued it from the fate that has befallen so many charts, valueless when a few years old, but which would be almost priceless now. Perhaps the charts of Columbus may be stored somewhere in like manner and yet be discovered.

XXXIX.—NEW FRANCE, OF VERRAZANO.

In the letter of 1524, Verrazano does not propose any name for the land he had discovered, but on the *Mapamundi* of 1529, by Hieronimus, we find it inscribed *NOVA GALLIA sive IVCATANET*, from Florida or the shore of the supposed Western sea to the *Terra des Bretons*. This name must have been, therefore, proposed by Giovanni, and the name *Yucatanet* was, perhaps, added by the mapmaker, though without any apparent reason, for the land of Grijalva is represented as doubtfully insular, and with its right name, *Yucatan*. He also has *Nueva Hispania* properly placed.

The Spaniards never recognized this name, but carried their *Florida* up to lat. 45°, which was officially declared to be the limit of Spanish territory by Philip the Second. It will be remembered that the name *America* was also not recognized by them until a very recent date.

Crignon, in 1589, had not seen Verrazano's chart, but says that many navigators, and even the Portuguese, call this *Terra Française*. Jean Alphonse, who coasted South to Massachusetts Bay

about 1542, says, in his *Routtier*, that these lands may well be called *New France*. Ramusius, in 1553, calls it *Nova Gallia*, and Ribault, in 1562, called it New France. Father Biard, in 1614-16, is of the opinion that Verrazan was the godfather of this name. Rocola, in 1660, (*Descript. du Monde*, 3^{me} partie, Tom. V, p. 27,) explicitly says that Jean Verrazan gave this name to it.

On many maps after 1530, it was designated as *Verrazana*, or as *Nova Gallia* and *Francisca*, the name New France being finally restricted to the lands first explored by Jacques Cartier, although he did not apply that name to them. The Mapmakers, who had followed the draughts of the discoverer, did not hesitate to place the name where it was first imposed, while historians, with the letter of 1524 only before them, were in doubt as to the origin and proper application of the name.

XL—JACOPO GASTALDI, 1548.

There was published at Venice in 1548 an octavo edition of Ptolemy, in Italian, containing modern additions, taken from Sebastian Munster, and newly designed maps prepared by Jacopo Gastaldi, the well-known mapmaker. Among these, the one entitled *Tierra Nueva*, representing the coast from Labrador to Florida, is from a draught entirely different from any previously published. The materials for it were probably derived from Ramusius, who had collected original maps to illustrate his collection of voyages, but who published very few of them. In this particular map we find indication of Portuguese and French tracings, with but little from Spanish ones. Labrador, confounded with Greenland, stretches far to the East; Newfoundland is divided into Islands, as in the Map of Sebastian Cabot of 1544 (which, however, Gastaldi does not appear to have used), and from Cape Breton to C. de S. Maria, the tracing appears to be a combination of Thomas Anbert's and Verrazano's charts. We cannot here further analyze this map, which has been well described by Mr. Kohl (*Maine*, p. 225 and 233), though he copies

it from Ruscelli's Ptolemy of 1561, not having seen the earlier edition of 1548, which he, however, quotes in a foot note.

The only point to which we wish here to draw attention is, that perhaps an attempt has been made to lay down Verrazano's *Luisia*, which is misspelt *Brisa*, and is placed not far from Cape Breton. It is doubtful whether the other portions of the coast to the S. W. are from Verrazano's explorations. They appear rather to be from the sketches of Jean Alfonse. Had he seen Verrazano's chart he could not have omitted, as he does, all mention of him in his text.

MERCATOR, 1569.

Gerard Mercator (or Kremer), the great reformer of Chartography, in his Planisphere of 1569, first named the island off the coast *Claudia*, being confused in his historical data, and this error was copied by Hakluyt and others. Mercator also commits, in his legends, the mistake of making him sail from Dieppe March 17, 1524. Ribault led him into this error.

XII.—RAMUSIUS.

Extract from the 3d vol. of the collection of Voyages by Ramusius. First edition. Venice, 1556.

Fol. 417. Discourse on the mainland of the West Indies, called the land of Labrador, of Bacchalaos and of New France.

There sailed also along the said land in the year 1524, a great Captain of the most Christian King France, called John da Verrazano of Florence, and he ran the whole coast unto Florida, as by one of his letters written to the said King may be seen more particularly, the only one we could procure, because the others were destroyed during the sack of the poor City of Florence, and in the last voyage which he made, having landed with some companions, they were all killed by those people, and in the presence of those who remained on the ship, they were roasted and eaten. This unfortunate end befell this worthy gentleman, who if this death had not prevented, with the great knowledge and understanding which he had of marine matters, and of the art of navigation, combined and favored by the great liberality

of the King Francis, would have discovered and made known to the world, all that part of the earth unto the Arctic pole, and he would have not been satisfied with the sea only, but would have tried to penetrate farther into the land and as far as he could have gone, and many who knew him and conversed with him, have told me that he had determined to persuade the most Christian King to send to those parts a good number of people to settle in some points of the said coast, which are of a temperate climate, and with a most fertile soil and very fine rivers, and harbors that can hold any fleets. Much good might be done to the inhabitants of these places such as turning these poor rough and ignorant people to the worship of God and to our most holy faith, and to show them how to cultivate the earth, taking the animals of our Europe to those spacious tracts, and lastly with time we shall have discovered the inland countries, and if among so many islands as there be there, whether any passage exists to the South sea, or if the mainland of the Florida of the West Indies continues unto the pole. This and many other things were said to have been alluded to by this valiant gentleman, of whose works and efforts we have wished to publish this little that has reached us, that the remembrance of him should not be buried or his name be forgotten.

XLII.—ADMIRAL CHABOT AND VERRAZANO.

Fontette MS. XXI, 770, fol. 60, National Library, Paris.

We translate the agreement given by Mons. Margry, with some abridgment.

“Philippe Chabot, Baron d'Apremont, Chevalier de l'ordre du Roy, son Gouverneur et lieutenant General de Bourgoingue, Admiral de France et de Bretagne.

“Has determined to fit out two french gallions now in Havre de Grace, together with a ship belonging to Jehan Ango of Dieppe of about seventy tons, for the voyage of the spices to the Indies.

“Have concluded with those below to put in a sum of twenty thousand livres tournois, i. e., we, the Admiral, four thousand;

Master Guillaume Preudhemme, general of Normandy, two thousand; Pierre Despinolles, one thousand; Jehan Ango, two thousand; Jacques Boursier, the same; Messire Jehan de Varesam, principal pilot, the same. The above sums amounting together to twenty thousand livres [which is not so, but perhaps the value of the ships made up the rest].

"The Admiral and Ango are to furnish the ships, with tackle and armament complete, and to have one-quarter of all merchandise brought home in return. The moneys above to pay for victualling, venture and wages.

"The said Messire Jehan, pilot, to furnish two other competent pilots for the other two ships, and to receive for himself and the two pilots, one-sixth of the merchandise brought in, after one-quarter has been taken out as above.

"Should any of the above ships be lost or not be able to sail, the apportionment to hold good as above, and the ship not sailing to participate at the rate of a mark to the livre.

"And should any prize be made at sea from the Moors or other enemies of the Faith and of the King, Monsieur l'Admiral will take a prior part of said prize of one-tenth, and the rest of the proceeds of said prize will be divided like the other merchandise, excepting such part of it as may be apportioned to the partners as agreed upon.

"And the Sieur Admiral will procure letters patent to license and expedite the said voyage, and that no obstacle shall be put in the way by any allied friendly or confederate nation of the King our Lord."

[Endorsed] "For the voyage of Messire Joan."

XLIII.—OVIEDO ON THE ENGLISH VOYAGE OF 1527.

Oviedo. *Historia general de las Indias*. Sevilla, 1535. Book 19, cap. 12, fol. 161. Academy edition, Madrid, 1851, vol. 1, p. 611.

Of certain stranger corsairs that have passed to those parts and the Indies, and what happened to them for their evil designs.

In the year 1527* an English corsair, under the pretence that

* *Ramusius*, Vol. III, fol. 204, has copied this date erroneously as 1517.

he had gone out on discovery, came with a great ship, returning from Brazil* on the coast of Tierra Firme, and from thence he crossed to this Island Espanola, and came near the mouth of the port of this City of Santo Domingo. He sent his boat full of men and sought license to come in there, saying that he came with merchandise and for traffic. At this moment, the Alcalde, Francisco de Tapia,† ordered a blank charge to be fired from the Castle at the ship, which was coming right into port. When the English saw this they retired outside, and those in the boat embarked and went back to their ship.

In truth the Alcalde committed an error in what he did, because if the ship had entered, it would not have gone out again against the will of the City and the Castle. Thus seeing the manner in which they were received, they took the direction of the Island of Sant Juan, and entering the bay of Sant German, they spoke to the people of that city, &c.

XLIV.—HERRERA ON THE VOYAGE OF 1527.

Herrera, *Historia general de los hechos de los Castellanos en las Islas y Tierra Firme del Mar Oceano*. Madrid, 1601. Decada II, Libro V, Cap. III.

(The following extract is placed in the Spanish work, under the year 1519, but in Navarro's own manuscript,‡ as we were informed by the late Buckingham Smith, the date of the report is, St. Juan, November 19th, 1527. We know also, from Oviedo, that this is the correct one.)

Cap. III. Of an English ship, which came to the Indies; and of the state in which the Islands were.

The ships which carried the gold, the pearls and the common merchandise having sailed, a caravel of Santo Domingo being in

*The account in Herrera, that the ship had come from Newfoundland, seems to be the correct one.

† Tapia died in January, 1533, and Oviedo himself was appointed as his successor, holding the appointment until 1554, though several times crossing the Ocean to Spain. In 1549 he became also Regidor of St. Domingo City; resigned his office 1556, returned home and died in 1557, aged 79.

‡ Entitled "A copy of a letter authorized by Domo. Cavallero, escrivano of the Audiencia of Espanola," &c., &c. MS. in Seville.

the Island of San Juan, loading with Cacabi [Cassava], there came in a ship of three top sails of the burthen of two hundred and fifty tons. The master of the caravel went to her in his boat, believing that she was a Spanish ship. He discovered a pinnace with twenty-five men armed with breast-plates, cross-bows and bows, with two pieces of Artillery in the bow. They said they were English, and that the ship was from England, and that this and another one had been fitted out to go and seek for the land of the Great Khan,* and that they had been parted in a storm. That this ship, pursuing her voyage, they got into a frozen sea, and found great islands of ice. That having taken another course, they got into a different warm sea, that boiled like water in a caldron, and that to avoid having the pitch melted, they went to make the Bacallaos (Newfoundland), where they found fifty ships, Spanish, French and Portuguese, fishing, and that they wished to land, to speak to the Indians, and they killed the Pilot, who was a Piedmontese. That from thence they had coasted to the Rio de Chicora. That from that river they had crossed to the Island of St. John.

And asking them what they sought in these Islands, they said that they desired to see them, to give an account of them to the King of England, and load up with Brazil wood. They requested the master of the Caravel, who was named Ginez Navarro, that he would come on board their ship, and that he would show them the route to Santo Domingo. He saw in the ship a quantity of wine, flour and other victuals and many cloths, linen, with many other articles for traffic. They carried much artillery, and a forge, and had ship-carpenters, and an oven to make bread, and there might be sixty men. The said Ginez Navarro said further that the Captain of this ship wanted to show him the Instructions he carried from the King of England, if he could have read them, and that at the Island of Mona, they put men ashore, and in the Island of St. John they trafficked some tin. This ship went to

* When Gilbert was fitted out with two barks of forty and thirty tons each in 1608, to search for a passage, where Hudson, in 1610, discovered the Straits that bears his name, there is a charge in the outfit of £6 13s. 4d. to Mr. Seger for writing her Majesty's letter to the Emperor of China and Cathay. Columbus, as we know, was always provided with a similar letter, and died in the belief that he had reached Asia only.

the port of Santo Domingo, and sent a boat ashore, saying that the traffic was desired, and it stayed there two days. The Alcalde of the Castle, sent on its arrival to ask the Auditors that they should give him orders what to do, and because they did not answer, he fired a piece of cannon against the ship; after which it hastened to get its boat back, and soon went away, and returned to the Island of St. John, where it lingered a short time trafficking with the people of the City of San German, and was not seen again. The Auditors, saying that the Alcalde ought to have waited their answer, arrested him, and informed the King of the case, and of the bad state of the fortress, in order that in its fortification some system should be followed, and that orders should be given to supply it with men, artillery and ammunition.*

This English ship † led to much thought, because, until then, not one from that nation had been seen in those parts, and therefore the King, as well as those in the Island, were anxious about it. The King would have desired that another course had been followed in Santo Domingo, and that the ship ought to have been taken by force or by cunning, because it was held as a perilous matter that the French, who already caused so much damage in Spain, ‡ should have begun to find the way to the Indies. On this account it was considered what remedy could be used against the inconvenience of having that nation § learn the way of navigating to the Indies.

As for the imprisoned Alcalde, the King ordered the Auditors to release him, that he might assist in the fortress, and that in his case they should proceed by a trial and let him know what they determined. If other ships should come to the Island, they were always to have an interview with them, and keep them guarded so that they might not escape, as this one had done. At the very least, they should seize the crew, or a part of it, or make such demonstrations, even of the most severe kind, that they would take care not to come again.

* Navarro's report ends here. The rest is by Herrera from other sources.

† Finding her way to the Islands.

‡ This is an allusion to Verrazano and the French corsairs.

§ The Spaniards at that time feared the French more than the English. Within a quarter of a century they were to suffer in their own seas of the West Indies from Buccaneers of both nationalities.

Further, because of the number of French Corsairs who frequented the coast of Andalusia, and it became necessary to guard it, the Count of Osorno Asistente de Sevilla, was ordered to fit out a fleet of five or six ships, and that it should be arranged that the (Casa de) Contratacion should assist in the expense of it, as it was done for its protection. Artillery was to be borrowed to arm the ships from the Dukes of Medina Sidonia and Arcos, and from the Marquesses of Tarifa and Ajamonte.

XLV.—HAKLUYT ON RUTS VOYAGE OF 1527.

Hakluyt (*Divers Voy.*, 1582) says that Robert Thorne's letter written from Seville in 1527,* to Henry the Eighth, led to the fitting out of two vessels on discovery westward, which sailed, according to the Chronicle of Hall and Grafton, May 20th of the same year from London, but this, as Mr. Biddle remarks, could hardly have been received in time to influence the despatch of this expedition. He adds nothing concerning the results obtained, but in his work of 1589, p. 517, he had gleaned from Sir Martin Frobisher and Richard Allen, a few facts, but could not learn the name of the commander, and that one of the ships was called the *Dominus Vobiscum*, which was not correct. He also heard that a learned Canon of St. Pauls, a mathematician, took part in fitting out the expedition and accompanied it, that one of the vessels was lost near Labrador, and that the other had coasted along Cape Breton and Norumbega and got home in the beginning of October.

In his great work, Vol. III, 1600, p. 129, the same statement is repeated, with the regret as before, that no writer had preserved a record of the voyage.

Curiously enough, at page 499 of the same volume, he quotes Oviedo's account of the English voyage of 1527, from Ramusius, and assuming the erroneous date 1517 for it, supposes that this expedition was commanded by Sebastian Cabot.

* From a note in Hakluyt, 1600, Vol. III, p. 500, we learn that he had a ledger, once belonging to Nicolas Thorne the elder, in Bristol, and that he found evidence in it to show that in 1526, this Thorne had sent a certain Thomas Tison (Tyson) to reside and traffic in the West Indies.

XLVI.—TIRABOSCHI.

The first edition of the "Storia della Letteratura Italiana, antica e moderna; del. Cav. Abate Girolamo Tiraboschi," appeared first at Mantua, 1771-82, in 13 vols. in 4^{to}. We could not verify our reference by consulting this edition, but have copied it from Vol. VII, part 1, p. 260, of the Florence edition of 1819.

After speaking of Verrazano's earlier career, and referring to the notice in the "Elogi degl' illustri Toscani. Tom. 2, No. 30," and giving a brief sketch of his voyage of 1524, he says: "Nella libreria Stroziana in Firenze, oltre la Relazione sopraccenata, conservasi manoscritta una Narrazione cosmographica assai benedistesa di tutti i paesi ch'egli avea in quel viaggio osservati, e da essa raccogliessi ch'egli ancora avea formate il disegno di tentar per quei mari il passaggio all' Indie orientali."

He then mentions the uncertainty hanging over his fate, and gives the reference to the letter of Annibale Caro of 1539, which he first discovered.

XLVII.—CARLI'S LETTER.

Archivo Storico Italiano ossia raccolta di opere e documenti finora inediti o divenuti rarissimi riguardanti la Storia d' Italia. Appendice. Tomo IX. Firenze. Gio. Pietro Vieusseux, direttore-editore al suo Gabinetto Scientifico Letterario, 1853.

Letter of Fernando Carli to his Father.

In the name of God.

4th day of August, 1524.

HONORED FATHER.—Remembering that when I was in the Barbary fleet at Garbieh,* the news which were daily given you from the illustrious Sig. Don Hugo de Moncada,† captain-general

* Charles had been outbidding Francis for the Imperial Crown, and in order to signalize himself, he prepared in 1519, an expedition against the Barbary powers.

† Hugo de Moncada, Viceroy of Sicily, sailed April 15, 1520, with 6,400 infantry, 320 light horsemen and 560 men-at-arms, besides officers and volunteers, on 56 vessels for Garbieh, an Island between the Damietta and Rosetta mouths of the Nile, and gained a signal victory there in June. See Documentos Ineditos para la Hist. de Esp. Vols. 23, 24.

of his Imperial Majesty in those barbarous parts, while pursuing and fighting the Moors of that Island, it appears pleased many of our patrons and friends, and that you were congratulated by them on the victory achieved; so, there are news again, recently received here of the arrival of the Captain Giovanni da Verrazano, our Florentine, at the port of Dieppe, in Normandy, with his ship, the *Delfina*, with which, at the end of January last, he went from the Canary Islands (Madeira) in search of new countries for this most serene crown of France, displaying great and very noble courage by engaging as he did in an unknown navigation with a single sail, hardly a caravel of ——— tons, having only fifty men, with the purpose, to the best of his ability, of discovering Cathay by taking the way through climates different from those in which the Portuguese are accustomed to make discoveries toward Calicut; but going toward the Northwest and the North, holding on his way so as to find some country or other. Although Ptolemy, Aristotle and other cosmographers laid down, that no land was to be found in the direction of such climates; and thus by God has he been permitted to do, as he distinctly describes in a letter to this sacred Majesty, a copy of which is inclosed in this. After many months spent in navigation, he was obliged, as he states, for want of provisions, to return from that hemisphere to this, having been seven months on the voyage, indicating a very great and rapid passage made in the performance of an admirable and extraordinary feat, to the mind of those who understand the navigation of the globe. The commencement of that voyage was marked with disaster, and many thought that there never would be news of him, or of the ship; that it must be lost about the height of Norway, by reason of the huge ice in that Northern ocean; but, as that Moor said, the great God, to give us every day more evidences of his infinite power, and to show us how admirable in this earthly machine, has discovered to him an extent of land, as you will observe, so vast, that according to the good reasons and degrees by elevation of latitude, it appears and shows itself to be larger than Europe, Africa, and a part of Asia; *ergo mundus novus*: and this is without what the Spaniards have these many years found in the West; for it is hardly a year since Ferrando Magaghiana [Magalhaens] having discovered an immense coun-

try, returned in one ship of five with which he went out, bringing back cloves that are much better than common; and of his other ships in five years no news has been heard. They are supposed to be lost. What our captain brought, he does not mention in his letter, except a young man of those countries made captive, but it is believed that he has brought a specimen of gold, in that region of no value, of drugs and other aromatic liquors, to confer with many merchants here, after having been in the presence of his Most Serene Majesty, where he should be at this hour; and from there to come here soon, for he is much desired for his conversation, the more because he will see his Majesty, our Sire, who is expecting to arrive within three or four days;* and we hope that his Majesty will once more give him half a dozen good vessels to make the voyage again. And if our Francisco Carli shall have returned from Cairo, be assured he will adventure himself with him on said voyage, and I believe they knew each other at Cairo, where he was some years since and not only in Egypt and Soria [Syria] but nearly throughout the known world; and therefore on account of his merit, he is esteemed another Amerigo Vespucci, another Ferrando Magalhiana and even more; and we hope that by providing himself with other good ships and vessels well built and victualled as requisite, he will find some profitable traffic and business; and he will do, our Lord sending him life, honor to our country by acquiring immortal fame and memory. And Alderotto Brunelleschi, who went with him, and unfortunately turned back, unwilling to follow him farther, when he there hears of it will not be well pleased. Nothing else now occurs to me; since by others I have advised you of what is doing. I commend myself to you continually, praying you to mention me to our friends, not forgetting Pierfrancesco Dagaghiano,† who being a studious person does not idle much time, and to him recommend me; also to Rustichi, who will not be displeased (if he should take delight as formerly) in hearing of matters concerning cosmography. May God guard you from all evil.

Your Son,

FERNANDO CARLI,

in Lyons.

* See also, Doc. Ined, vol. 28.

† Perhaps Gagliano.

XLVIII.—JEAN ALFONSE.

Jean Alfonse de Saintonge, the pilot of Roberval, who was in Canada, 1542-1543; and who appears to have sailed along our Coast about that time, left a manuscript cosmography, completed in 1545, which is in the Nat. Library, Paris (MSS. f. fr. 676), in which no mention is made of Verrazano's voyage, 18 years before his own, nor does he appear to have had a knowledge of any early charts of the coast. The confused sketches of the coast which accompany the MS. are in detached sections (perhaps not of his own compiling), from Nova Scotia to Florida. Editions of his work, under the title of "*Voyages aventureux du Capitaine Jean Alfonse, Saintongeois*," appeared in 1559, about twelve years after his death, and again in 1578 and 1598. The published work, however, is not as full as the MS., which is deeply interesting to American students, in those parts that profess to describe our coasts. Although a portion of his printed work is given by Hakluyt (*Voyages*, Vol. III, 1600, fol. 239), it seems never to have occurred to any one that he ought to be considered as an explorer of our coast, until Mons. Margry, in "*Navigations Françaises*," &c., Paris, 1867, p. 323, drew attention to the passage (also given by Hakluyt), in which he distinctly avers that he had entered a bay in lat. 42°. The Rev. B. F. De Costa has treated this subject in detail in his "*Northmen in Maine*, 1870."

We believe that neither Mess. Leon Guerin, Davesac or Margry, who have noticed this experienced navigator, were aware of the mode of his death. We may therefore be excused for drawing attention to the following account of it, and also because Verrazano's fate may have been somewhat similar, and perhaps now lies recorded in some document not hitherto consulted.

The poet, Melin de Saint Gelais, in the verses which accompany the first edition of the "*Voyages aventureux*," of 1559, refers vaguely to some passages in the life of this forgotten pilot and corsair, and says of his death :

"La mort aussi n'a point craint son effroy,
 Ses gros canons, ses darts, son feu, sa foudre,
 Mais l'assaillant l'a mis en tel desroy
 Que rien de luy ne reste plus que poudre."

We quote these lines from HARRISSE's "Notes sur la Nouvelle France, Paris, 1872," p. 8, who adds that Alphonse appeared to have been killed in a naval combat, which must have taken place before the 7th of March, 1547, the date of the Imprimatur of the edition of 1559, which contains the verses of Saint Gelais.

Barcia, Ensayo cronologico para la Historia General de la Florida. Madrid, 1723, fol. 58.

"This and other like deeds brought him [Menendez] into such credit that in the following year he was ordered by the Emperor Maximilian,* who then governed in Spain, to go against Juan Alphonso, the Portuguese† (who was called the Frenchman by the Spaniards), a Corsair, who had taken, near Cape St. Vincent, 10 or 12 Biscayan vessels, loaded with iron, iron work and other valuable merchandise. He had hardly received the order, when he proceeded straight to the coast of Brittany and to La Rochelle, recaptured five of the vessels taken, and entering with one near the reef of La Rochelle, where he anchored, he fought with Juan Alphonso, and wounded him; and when he wished to go out by the way he came in, he could not, having wind and tide against him. The magistrate of the Port ordered him to land; which he did, showing his commission, and giving the reasons for taking those prizes which they had made, breaking the peace. But the magistrate would not let them go; placing them in deposit (depositolas), so that those interested would seek to recover them. Not being able to do otherwise, he obtained certificates, sending one to the Emperor Charles the Fifth, who was in Flanders, and the other he took himself.

Juan Alphonso died of his wounds, and his son, Antonio Alphonso, was so indignant about it, that, with his patrimony, he inherited the art of piracy of his father, and sent to defy Pedro Menendez, notifying him that he should put to sea after two months, and he did so, with three ships, very good ones. He sailed towards the Indies, where he learned that Menendez was

*Barcia is mistaken here. This Maximilian was the eldest son of Ferdinand of Austria, and his wife was the Princess Mary, daughter of the Emperor. The Emperor left Spain in 1540, and his son Philip left it in 1548.

†He was certainly a Frenchman, from Saintonge, near Cognac, but had been in the Portuguese service, and was familiar with the navigation to Brazil. Barcia, p. 24, mentions him as *Alonso (gallego o Portugues)*.

going. He went to await him at Teneriffe, and there attacked two ships to capture them, but a ball from the Spaniards cut him to pieces, sinking the ship afterwards; and shortly after that Pedro Menendez took the two others."

Pedro Menendez de Aviles was born 1519. Took to the sea when quite young, distinguished himself, was made Adelantado of Florida, and died aged 55, in Biscay, when just about to lead the Great Armada of three hundred sail, against the English. It is said that he had made over fifty voyages to the India.

XLIX.—BUCKINGHAM SMITH'S NOTICES OF VERRAZANO'S VOYAGE.

The late Buckingham Smith of St. Augustine, Florida, was deeply interested in all that related to the early discovery, exploration and settlement of his native State. He printed several documents from the Spanish Archives bearing on this subject, and also annotated the narratives of De Soto and Cabeza de Vaca, but in such limited editions that they are not generally known.

He left some manuscripts, copied in Spain, a selection from which may at some future time be edited and published by those who have charge of them. Among these were some documents or notes relating to the supposed death of Verrazano at the hands of the Spaniards.

Mr. Smith, in his zeal to establish the claims of the Spaniards to the discovery of our coasts, was wont to discredit all that interfered with them, and thus endeavored to prove that the voyage of 1524 by Verrazano, was a fiction. He first expressed this theory in a paper read before the New York Historical Society, October 4th, 1864, followed by a resumé of it in the *Historical Magazine* for June, 1865.

We met soon afterwards, when he was shown, as confirming the voyage of 1524, the almost cotemporary statement of Crignon, as given by Estancelin, and the notice of the *Mapamundi* of 1529, discovered by M. Thomassy in Rome. He gave a translation of this last notice in the *Historical Magazine* for October,

1866, but mistook the sense of the Italian words *carta pecora*, supposing they meant *small Map*, and expressed no confidence in the Map as a document confirming the letter.

Soon afterwards he read the agreement between Admiral Chabot and Verrazano, given by Mons. Margry in his *Navigations Francaises*, and gave it translated, in the Historical Magazine for January, 1869, with some prefatory remarks which we quote here.

"The following draft for a Charter party, with promise of the approbation of Francis I., for a voyage to India, was discovered in the Bibliotheque Imperiale, and first published last year, in the original, by M. Pierre Margry, in his work, *Les Navigations Francaises du XIVE au XVIIe, Siecle*. The enterprise contemplated, as may be seen by reference to the volumes of Francisco d'Andrade, *Cronica do Muyto alto e muyto podiroso Rey destes Reynos de Portugal Don Joas a III deste nome*, printed at Lisbon, in 1613, was to form a settlement in Brazil, and was defeated in France by the Portuguese Minister, Silveyra, in whose time, we read, a period of nine years, from 1523, during his continuance at Paris, no other attempt appears to have been made from France, at a voyage of like character.

The author of *Les Navigations* observes that this Document could not have been drawn up earlier than 1526, the year in which Cabot received the office of Admiral and the Government of Burgundy, in recompense of his services in delivering the King from the prisons of Charles V. The date is subsequent to that of the Letter of Verrazzano, 1524, giving account of his discovery of the Northeast coast of America, and proves the assertion of some Spanish writers not to have been exact, that his execution took place in that year.—B. S."

We cannot here attempt to refute or criticise Mr. Smith's doubts more fully than we have done, in the course of the above paper and notes. His opinions, when analyzing early Spanish narratives, are of great weight, but he paid little attention to the early French or English ones, which did not interest him.

The following are his published notices on Verrazano:

The globe of Euphrosynus Ulpianus, 1542. Historical Magazine, 1862, p. 202.

An Inquiry into the authenticity of documents concerning a

discovery in North America, claimed to have been made by Verrazano. Read before the New York Historical Society, Tuesday, October 4th, 1864. By Buckingham Smith, New York, 1864 (8° pp. 31, with copy of part of the globe of 1542). Contains quotations from Caro's, and the whole of Carli's letter.

Verrazano as a discoverer. Hist. Mag., 1865, pp. 169, 175. (Contains a review of his Inquiry, &c.)

Remarks on Mr. Smith's paper on Magallanes and Gomez. (By Mr. Smith.) Hist. Mag., 1866, p. 230.

Map of the World, containing the discovery of Verrazano, drawn by Hieronimus de Verrazano. Hist. Mag., 1866, pp. 299-300. Contains only Thomassy's notice of the Map.

Verrazano. (Charter party for a voyage to India, &c., with prefatory remarks.) Hist. Mag., 1869, p. 28.

L.—J. G. KOHL ON VERRAZANO'S VOYAGE.

No critical examination of Verrazano's voyage along our coast had been attempted by a geographer until Dr. J. G. Kohl, in his interesting "History of the Discovery of Maine," in 1869, gave it especial attention. He had not seen the chart by Hieronimus (see op. cit. p. 290, note), or his opinions would have been materially changed. The absence, in the letter, of any definite description of our coast (which description was probably minutely given in the "*little book*," alluded to), makes it impossible to trace Verrazano's exploration with certainty.

Dr. Kohl is also disposed to accept Verrazano's claim to have coasted from lat. 34 deg. to 50 deg. We have shown that his landfall could not have been South of lat. 39 deg. 05 min., as he had been swept North by the Gulf stream (whose history Dr. Kohl has published), and that the chart shows no geographical features which could permit any other assumption. It must be remembered that no correct observation could be taken at that time on board ship, and his landings were too hurried to permit the setting up of his larger instruments, so that the only reliable observation was the one taken in Newport harbor, where he tarried for a fortnight.

Dr. Kohl, as others have done before him, by assuming the landfall to have been in lat. 34 deg. has, of course, to make the landings of the explorer fall so much more to the South of the points where we place them. This has always prevented a proper understanding of the letter. We shall not, therefore, undertake to correct Dr. Kohl, who, with others, agrees upon Newport harbor as the place where Verrazano stayed two weeks.

Dr. Kohl has not observed that in at least two places, that is in the paragraphs we have numbered as 9 and 14, the writer of the letter repeats himself, thus leading one to suppose that he had coasted more than was really the case.

His observation that the people of the more northerly lands visited by Verrazano, were acquainted with the use of iron, and opposed to the landing of strangers, is ascribed to its true cause, the visits to their coasts by fishing vessels.

The voyage of Gomez, in 1525, and Rut's expedition of 1527, are also carefully treated by Dr. Kohl, who deserves the thanks of all American students for the many geographical memoirs he has published.

IV.

PHYSICAL GEOGRAPHY OF THE NORTH-WESTERN BOUNDARY OF THE UNITED STATES.

By GEORGE GIBBS.

WITH TWELVE ILLUSTRATIONS.

READ NOVEMBER 11TH, 1869.

GEOLOGY OF THE COAST REGION — CHANGES OF ELEVATION.

Dr. Newberry, who has carefully studied the geology of the Sierra Nevada, the Cascades, and the Coast range, both in California and Oregon, has arrived at the following conclusions: That, in the earlier stages of elevation of the continent, the Sierra Nevada and the Cascades of Oregon formed its western limit, and that long before the elevation of the Californian and Willamette valleys, or of the Coast mountains, the ocean broke against their sides; that this was the case prior to the tertiary epoch, as no rocks so recent as the tertiary are found upon their summits, or high up on their flanks; but that, as the elevation of the continent and of these ranges progressed, the rocks of the miocene were deposited, the edges of which rest against their base; that the upheaval of the Coast range was still subsequent, those mountains being formed by the protrusion of igneous rocks through the miocene, which yet partially crowns and skirts them on either side; that the elevation proceeded until the glacial epoch, during which the great erosions of the valleys, the

straits, and river bottoms, as well as of the northern fiords, took place, after which a subsidence commenced, when the drift was deposited; and that finally a new upheaval commenced, and is still progressing.

These deductions are fully borne out by the facts collected in Washington Territory. From the Columbia, at the mouth of the Cowlitz, tertiary sandstones line the basin included between the Coast and Cascade ranges, as far as Bellingham Bay on the east and Port Townsend on the west, and have been traced consecutively along the Pacific, from the mouth of the Columbia to Cape Flattery, and through the southern shore of the Strait of Fuca. These rocks are almost everywhere greatly disturbed by intrusions of trap, and, except along the edges, are covered with drift. They abound in coal, of which seams of various thicknesses have been found in many localities. None of the earlier stratified rocks have as yet been detected below the tertiary, upon the mainland of Washington Territory; but the occurrence of cretaceous and carboniferous fossils elsewhere in the neighborhood will presently be mentioned.

LOWER COLUMBIA RIVER.

The features of the country on the Lower Columbia have been described by Mr. Dana in the *Geology of the Exploring Expedition*, and by Dr. Newberry and myself in the *Pacific Railroad Reports*,* and little can now be added to the facts there stated. The estuary of the Columbia River extends to Cathlamet Point, about twenty-five miles from Cape Disappointment. Its greatest width is seven miles. Much of this space is occupied by sand, the deposit of its freshets, and these extend to some distance seaward outside of the heads, forming the dangerous obstructions to its entrance. During the freshets, which commence about the middle

* P. R. R. Reports, vol. i and vi.

of May and continue till near the end of July, immense quantities of this deposit are brought down. The bulk in each gallon of water is perceptible, and so vast is the flood, that the water on the bar is drinkable at low tide. The northern point of the entrance, known as Cape Hancock or Disappointment, is a precipitous, rocky bluff, connected with the main by a strip of land elevated but slightly above the sea, which divides the Columbia from Shoalwater Bay. The southern, Point Adams, is of sand, and forms the extremity of the so-called Clatsop Plains. These are rather a series of parallel valleys, inclosed between ridges of sand, which extend from the mouth of the river to Tillamooks Head. The extensive sheets of water, north of the Columbia, known as Shoalwater Bay and Gray's Harbor, resemble the estuary of that river, in their general character. Both are protected from the sea by shelter beaches, probably formed in great measure from the matter swept down by the waters of the Columbia, and are in great part silted up by deposits of sand and mud.

At Astoria the sandstones and shales of the tertiary are intersected by dikes of basalt, and a similar dike occurs on Shoalwater Bay. Fossils, ascribed by Mr. Conrad to the miocene, are common, chiefly occurring in calcareous nodules washed from the banks. They comprise cetacean bones, fish, mollusks, echini, and one species of abies.* Above Astoria the rocks exposed on both shores of the river are chiefly basalt, and basaltic conglomerate in horizontal beds, and interstratified. The basalt is generally compact, and in places assumes columnar and nodular forms, though less distinctly so than east of the Cascades.

The conglomerates vary greatly in composition from tufaceous and pebbly rocks to one imbedding large fragments of basalt. Mr. Dana has shown that they are

* Geology Expl. Exp., App., p. 722.

sometimes interstratified with, and even merge into, the tertiary sandstones.

COWLITZ AND CHIHALIS BASIN.

Leaving the Columbia for Puget Sound, the rocks bordering the Cowlitz and Upper Chihalis are again tertiary, interrupted as before by dikes of basalt, which become, however, less extensive and frequent. Several outcrops of coal occur in the neighborhood. One seam of eight feet in thickness was recently discovered upon a creek emptying into the Columbia below the Cowlitz. On the Cowlitz River, near the landing, and again about half a mile above the upper forks, are others. Upon the "Skookum Chuck," an easterly branch of the Chihalis, still another seam was opened some years ago, but the coal, though abundant, proved of inferior quality. The exact limits of this formation, owing to the broken and heavily-timbered face of the country, have nowhere been defined. It undoubtedly extends west, with interruptions of basalt, through the Willopa hills to Shoalwater Bay and Gray's Harbor; but its eastern border does not probably reach beyond the foot hills of the Cascade range. As in the Willamette valley, it has evidently been much denuded.

The soil on the Cowlitz River, where the face of the country is not too broken for agricultural purposes, is among the richest in the territory, consisting of a light sandy loam of great depth, with interrupted beds of clay, wet and excessively tenacious like those of the Willamette. On reaching the Skookum Chuck, a series of gravelly prairies intervenes, which extends along the eastern side of the sound to beyond Steilacoom. On the Lower Chihalis and Gray's Harbor, and upon the streams entering Shoalwater Bay, tracts of great fertility again occur.

MOUND PRAIRIES.

The gravelly prairies between the Skookum Chuck and Olympia are characterized by the occurrence, in great number, of small elevations, which have given to them the descriptive name of the mound prairies. They occur elsewhere, but more sparingly in different parts of the country; always, so far as my observation has extended, in gravelly deposits, and in such situations as may be supposed to have been lake bottoms, for I presume those upon the hills, above the Dalles of the Columbia, to be of a different character, as they are different in size and shape. The prairies upon which these mounds occur lie upon both the Chihalis and the Tenalquet, the former emptying into Gray's Harbor on the Pacific, the latter into Budd's Inlet, an arm of Puget Sound, their valleys being separated by low, rolling hills. There is every evidence of their having once been lakes. The hills bordering them exhibit sloping banks, such as generally surround tranquil waters, and upon several there are more or less distinct lacustrine terraces.

So strongly, indeed, do they suggest this origin, that the Indian legends tell of their being dried up by supernatural means. A noticeable feature among all of them is, that the ground is rather lower around their edges, or immediately under their banks, than in the centre, as is the case sometimes with marshes.

The first prairie of the series is that known as Ford's, situated on the north bank of the Skookum Chuck, and here the mounds are first observable. On this tract they are low, and not sufficiently numerous to attract particular attention. It is nearly a dead level, and raised but little above the freshets of the Chihalis. At Luark's, along the edge of the woods, on the east side, numerous "oak stubs" grow on small hillocks, which seem to have been raised partly by their droppings, partly from the pushing up of the soil by their accumulated roots; but these are not to be classed with the true mounds. On the





THE GRAND MOUND.

"Grand Mound prairie," there are low, scattered mounds between Cooper's and Goodell's, the most distinct being those nearest the woods. What is called the "Grand Mound" itself, is an isolated hill about sixty feet in height, on which are a number of oaks and large firs. Its most gradual slope is to the north-west. No rock is visible on any part of it, but there is a spring on one side, about two-thirds of the way up. It is, of course, entirely distinct from the mounds in question, though its form has doubtless been modified by water. Around and to the north of the Grand Mound the lesser ones are very indistinct; but through the middle of the prairie they become more numerous and better defined. They seem most so, however, near the edge of the prairie, at least on the south-east side, where the road passes, and toward the eastern end they are well developed. They are generally covered with fern, denoting a better soil than that of the prairie level, which is very gravelly and poor. Boulder stones begin here to be common, between the mounds. Crossing "Scatter Creek," a stream which wanders over the level of the prairie, often during the dry season disappearing and rising again; the next, called the "Long prairie," is pretty well covered with mounds. It is more unequal in elevation than the last; and at the eastern end there is a terraced ridge in the middle, about twenty-five feet high, having a steep bank to the south. On this there are some few mounds of an exceptionally large size, the highest, about fifteen feet, having been the site of an Indian house, or perhaps Kamass cellar, several holes being excavated in the summit. The ground is here very stony, the boulders being sienite, trap, green-stone and trap conglomerate. The ordinary mounds are pretty distinct, say four or five feet high.

On Hodgden's prairie the mounds are obscure. A terraced ridge runs through its middle, and there are a great many boulders of a foot or eighteen inches diameter

scattered through it. At Hennesey's a well of fifteen feet was dug entirely through boulder stone, no walling being required. The little "Round prairie" beyond is more sandy than gravelly, and quite free from mounds. The two prairies on Black River, known as Baker's and the Mimee prairie, I did not visit, but received satisfactory information from others respecting them. On the first, the mounds are comparatively few and low. The southern end of Mimee prairie is said to be terraced with but few mounds; the northern end thickly covered with mounds about six feet high. The country on Black River is in great part swamp, caused by beaver dams.

The most remarkable development of this formation, however, is on Rabbison's or "Stony prairie," which lies on the Tenalquet. Nearly the whole extent is so thickly studded with mounds, that the bases touch one another. The average height is six feet, and they are generally twenty-five or thirty feet in diameter, being sections of a sphere. Quite a number of them have been opened from curiosity, and in every case with the same result. They are composed of a light soil, with interspersed gravel, being perfectly homogeneous through the whole mass. I caused one of them to be trenched down to the level of the prairie. There was no appearance of stratification. The soil and gravel were equally intermixed throughout. This prairie is of generally uniform level, though with some swales running across it, and the intervals between the mounds are, as it were, paved with boulder stones; the appearance presented being as if the superficial soil, down to this bed, had been shovelled up into piles. The mounds are covered with grass and fern, the intervals, as mentioned, being stony, barren, and destitute of vegetation. Beyond this prairie they extend a short distance into the woods, a fact which I have observed nowhere else. They have, however, no resemblance to the hillocks caused by fallen timber. "Bush's prairie" is sandy, and exhibits few or no traces of

mounds, so far as I noticed. The above constitute the district of the mound prairies proper, but there are also traces on some of those lying between Olympia and the Nisqually River, and on parts of the Nisqually or Steilacoom Plains. These are generally low and indistinct, but characterized by the same superiority of soil.

Captain (now Admiral) Wilkes, in his journal of the United States Exploring Expedition, speaks of the "Butte prairies" as covered with tumuli, or small mounds, at regular distances asunder, conical in form, about thirty feet in diameter at the base, and six or seven above the general level. He opened some of them, but found nothing except a pavement of round stones. They seemed to him to be grouped in fives (thus :•), and, he remarks, had evidently been constructed successively, and at an interval of several years, and were formed by scraping the surface-soil together.

Among the various theories respecting their origin, I had met with none that appear to me satisfactory. Capt. Wilkes, as shown above, is decidedly of opinion that they are of artificial, and, inferentially, human, construction. To this there are many objections, however. The Indians themselves have no tradition of their origin, and clearly do not recognize any marks of human labor, or they would doubtless have referred them to the ancient or demon race, whose handiwork is apparent in everything anterior to their own traditional recollection. The solution which occurred to the minds of those of whom I inquired was that they were made, like the waves of the sea, by winds. That they are not properly tumuli is apparent from the fact that they contain no bones or relics of any kind, or evidences of fire. Their number also contradicts the supposition, as does likewise the other fact, that there are none conspicuous above the rest, which would have been the case with the graves of chiefs. Except for sepulchral purposes, I can conceive no object in their construction. There is no trace of design in

their arrangement, no distinguishable features or relative position. In frequent rides through the prairies, I have looked carefully, but in vain, for a disposition in quin-cunxes, and called the attention of others to the point, without ever succeeding in detecting it. Neither could I see any marks of labor upon them, beyond the fact that their material was homogeneous. As regards succession or interval in construction, the only possible evidence that can exist is that, in some prairies and parts of prairies, they are larger than elsewhere. As respects the pavement, it bears no evidence of artifice. It is simply the substratum of the whole district, the mass of underlying boulder of the drift.

Farther: the mounds cover so great an area that a population much larger than could have been subsisted in the country would have been required to construct them, unless a great length of time were occupied; and the process would, at least temporarily, have destroyed the only land from which subsistence could be derived. Now, it would be contrary to all experience of Indian character to persist for generations in heaping up these piles unless for purposes of burial, which they clearly are not; defence they never could have been applied to. Again, they seem to be confined to the gravelly and stony prairies, and those where sand or light soil prevails are generally, if not entirely, free from them. If they had been the work of Indians, the easiest ground would naturally have been selected. Among other speculations, one is that they are the product of denudation, or rather that the mounds themselves have been protected by vegetation, such as fern, bushes, etc., while the intervals have been washed away. I examined particularly whether there was any arrangement in reference to drainage, but found that there were no continuous lines, nor any such slopes as would admit of this explanation. Only in one or two swales did the mounds seem to me parallel to the general course. Usually they are as numerous in these

hollows as on higher ground. As to the protection afforded by bushes, it is very certain that clumps of the scrub oak do surmount small hillocks on the skirts of the wood ; but, on the other hand, the mounds proper are too large and too equidistant to admit of this explanation.

Again, they have been attributed to the pushing up of the soil by the roots of the wild cucumber vine (*Megarrhiza Oregona*), which frequently reach the size of a half barrel, and are very commonly found in them, or that these have at least formed a nucleus about which the soil has collected. But, independent of the fact that these roots are only occasionally thus found, and that they as often grow in level ground, it is much more probable that the vine has here obtained the soil requisite for its growth. That they are not the remains of a burned or overturned forest is clear from comparison with the ground beneath existing woods, where large trees have been overthrown. The piles of earth and rock upturned with the roots always, of course, leave a corresponding depression.

There is again no indication that they are the work of burrowing animals. They exhibit no depressions where holes can have existed, nor, as before remarked, do they contain bones, or evidences of occupation. Instead of being thrown up from within, the mounds have been clearly piled up from without.

Finally, it has been surmised that they are thrown up by springs, at the bottom of the lakes. To this, the same objections of regularity of size and uniformity of distance may be offered, while there are still greater ones, in the equal distribution of gravel through the mass, and the light and open quality of the soil.

To Mr. Agassiz is due the only explanation consistent with all the facts. On exhibiting to him the drawings and description of the mounds, he unhesitatingly declared them to be the work of fish of the sucker family, accumulated in successive years during the lake period, for

the protection of their eggs. A similar process, he states, is going on in Jamaica pond and other little lakes around Boston, and that on a scale which causes no wonder at the size of those of Washington Territory.

In accepting his views, I have thought that their full force could but be given by presenting the facts relating to the mounds, and the various speculations and objections that have occurred to myself and others, notwithstanding their prolixity. As to the era of their formation, it must be of a date geologically modern. It was long subsequent to the deposit of the drift, because a large amount of organic (vegetable) matter has entered into the soil of which they in part consist.

DRIFT OF PUGET SOUND.

The basin of Puget Sound consists, as already described, of slightly-rolling table land, intersected in various directions by deep canals and bays. The whole of this plateau country, extending on the eastern shore from the gravelly prairies of the Chihalis to Burrard Inlet, in about lat. $49^{\circ} 20'$, taking in the peninsula between Admiralty Inlet and Hood's Canal, Whidbey Island, and a strip bordering the southern shore of the Strait of Fuca as far as Observatory Point, is one vast mass of modified drift, almost unbroken by the occurrence of rock in place. From this, however, is to be excepted the group of islands lying between the Strait of Haro and Bellingham Bay, which will be hereafter described. The height of the deposit above the sea level exceeds 300 feet, and, judging from the character of the bottom in the included canals, its depth below that point is in places still greater. Burrard inlet forms the dividing line between the drift and the mountain country which, beyond it, comes down to the water. It will therefore be noted that the inlets of Puget Sound differ from those north of Burrard in this, that the former are excavations in the deposited drift, while the latter are proper fiords.

The general constituents of this drift formation are sand, or rolled stone, and gravel of different sizes, mixed with sand and interstratified with beds of clay; the latter usually occupying a low position in the exposed cliffs. There is some variety in the lithological character of the pebbles in different parts of the sound, trachyte and volcanic tuff or grit being more abundant in the drift at the upper or southern end than lower down, and sandstone predominating both on the Strait of Fuca and in Bellingham Bay—facts consistent with the idea of neighboring derivation. For the rest, a great variety of plutonic and metamorphic rocks, identical with those of the Northern Cascade range, the Olympic group and Vancouver's Island, form the mass of detritus. It is observable that micaceous rocks are almost wanting, and that soda takes the place of potash feldspars. The stratification is sometimes quite distinct, and for the most part horizontal. The sections presented by the bluffs indicate that the unevenness of surface is generally due, not to subsidence or upheaval, but to partial denudation, the lines running out where the ground slopes away. These lines are, it is true, not always continuous, but, after extending some distance, often rise or drop suddenly a few yards, and again resume their former altitude. A very good instance of this may be seen on the western shore of Whidbey Island, opposite Port Townshend. The horizontality is, of course, not universal. In some parts of the sound local subsidences have taken place, which cause a sag, creating an intermediate valley. In others, fractured strata are observable, arising from the same cause. The bluffs are almost always abraded on their water-faces, either by the undermining of waves, or by the wash of rains, which often bring down slides of earth and trees, and their steepness depends in great measure upon the adherence of their constituents. On the inside of Protection Island, however, and near Point Partridge, on Whidbey Island, as also at several points farther up the

sound, faces occur with regular slopes, and covered with vegetation, which have not been destroyed by recent modification. The prairie country around Steilacoom, or between the Nisqually and Puyallup rivers, forms a series of levels, rising in well-marked terraces, which not only border the intervals of water-courses running toward the sound, but face the sound itself. Similar terraces are observable at other points, as near Port Townshend.

I have observed no mollusks in the drift above the sea-level, but beds of infusorial earths occur in various places. These were submitted to the examination of Mr. Edwards, whose report upon them is appended. Very unexpectedly, they prove to be of fresh-water origin; the late Professor Bailey having arrived at the general conclusion, from the specimens examined by him, that all those deposits from the country west of the Sierra Nevada and Cascade range would prove to be of marine, as those from the east are of fresh-water, origin. So far as California is concerned, this seems yet to be true; but the earths from Puget Sound appear, on the contrary, to be fresh-water also. Some specimens from Simiahmoo Bay, on the forty-ninth parallel, which are of more recent character, may be supposed to be the deposit of the creek at that place; but others from Port Ludlow and Colseed Bay, and from the banks of the Skookum Chuck, are properly fossil. As I obtained these from other persons, and did not see them in place, I am unable to assign their geological position. The clays, interstratified with the drift, according to Mr. Edwards, do not contain infusoria. In this connection it may be noticed that most, if not all, of the streams which head in the volcanic peaks of the Cascade range are laden in their freshets with earthy matter, and that these deposits may possibly consist of vapillæ, which it is known are frequently infusorial.

Below the sea-level the borings of two Artesian-wells at Port Gamble afford a means of determining the char-

acter of the deposits to a depth of 230 feet. A section with specimens was furnished me by Mr. Henry C. Wilson, of Toekalet, as follows :

1st. Quicksand	65 feet.
2d. Small boulders	10 "
3d. Cement of gravel, sand, iron, and clay.....	20 "
4th. Blue clay	25 "
5th. Quicksand containing water and gas	10 "
6th. Blue clay	100 "

In the last stratum, as in those above, were found pieces of decayed wood and shells. Unfortunately, the specimen sent did not exhibit any of them. The gas is said to be carburetted hydrogen, and to burn with a white light.

Elephantine remains have been discovered in the swampy land overlying the drift. Near Port Townshend two large fragments of tusks were ploughed up ; and Dr. Kennerly, of the Survey, obtained another fragment from New Dungeness. Dr. J. G. Cooper also obtained pieces of teeth near Penn's Cove on Whidbey Island. Thin seams of lignite occur in various places, as along the eastern side of Whidbey Island, and at what is commonly called Volcano Point, on Admiralty Inlet. At this place, a seam about twenty feet from the top of the bluff has for many years been on fire, spontaneous combustion having probably taken place from decomposing pyrites, as it is most active during the rainy season.

No general order can be given of the stratification of the bluffs, which varies everywhere ; but the following will serve as examples :

Strait of Fuca, near New Dungeness.

4. Sand and gravel, in beds covered with slides, say	100 feet
3. Stratified blue clay.....	3½ "
2. Brownish clay, impure, with some oxide of iron..	3 "
1. Gravel and sand, coarse.....	3 "

Beach of rolled pebbles.

Point Wilson, Strait of Fuca.

5. Sand and gravel stratified, but chiefly compact sand, say.....	100 feet.
4. Vegetable matter	2 "
3. Sand	6 "
2. Vegetable matter	2 "
1. Blue clay, containing vegetable traces and imbedded fragments of wood.....	4 "
Beach of rolled pebbles.	

This section extends for some hundred yards along the shore. The vegetable matter is in a highly compressed bed, running nearly horizontally, of very even thickness, and in almost every stage of carbonization. The upper seam is less regular, thinning out to the westward to four inches. The wood is apparently spruce. One stump, found imbedded in the sand, was about six inches thick and four feet long. It seemed somewhat compressed, but the wood was nearly unchanged. In this seam was found a blue earth, identified by the analysis of Dr. Wolcott Gibbs as phosphate of peroxide of iron, which occurred in small masses imbedded in the sand, and also with the wood. It was noticed only at this locality. At Point Roberts the bluff on the inside, or bay, is, by estimate, about 200 feet high. It consists chiefly of sand, stratified with small gravel, and colored in places with iron. Interstratified with this are seams, a foot or so in thickness, of fine clay. Where intermixed with sand, the latter sometimes segregates itself, showing a disposition to concrete in rounded masses. According to my observation, boulders of large size are seldom seen imbedded in the bluff, although very common at its foot, and sparsely distributed over the surface of the country, indicating a transportation more recent than the deposit of the general mass of drift. Sienite is the most common material of these blocks. Pudding-stone and a hard gray quartzite occur, though less frequently. Some

of the boulders on the beach between Seguina Bay and Port Townshend were from twelve to fifteen feet in length, and one in the woods between Fort Steilacoom and the Puyallup is of still greater dimensions.

As might be expected from the general prevalence of these gravelly deposits, the Puget Sound district presents but a limited amount of arable land. The strictly alluvial tracts are, however, of great fertility, and the roots and smaller grains are of fine quality and very productive.

TERTIARY OF PUGET SOUND.

The tertiary rocks of Puget Sound have not been merely tilted by the elevation of the Coast range, but greatly dislocated on the side of the Cascades by local eruptions. It would seem, likewise, that a general subsidence has taken place in this basin, and in the Gulf of Georgia, as it is very unlikely that so extensive a depression should be due to erosion alone, where protected from the encroachment of the sea by an exterior wall. In fact, that local oscillations have occurred in the northern coast, not extending to Oregon and California, is highly probable. The gap in the outer line of islands, between Vancouver's and the Queen Charlotte group, and that known as Dixon's entrance, independent of the chasm between those islands and the mainland, can hardly be ascribed to any less powerful causes.

Outcrops of tertiary rocks occur along the edges of the drift on either side of the basin, but rarely protrude through it. The coal or lignite in which they abound appears also in various places; as on the Skokomish River, a stream emptying into Hood's Canal; on the Nooskope, a branch of the Dwamish or White River; on the outlet of Dwamish Lake; upon Bainbridge Island, opposite the village of Seattle, and on the Stoluk-whamish. The only place where any working has been carried on is at Bellingham Bay, and it is there that the

tertiary rocks are most extensively exposed. No lime stone has been observed among them, and none of the calcareo-argillaceous concretions common at Astoria and other southern tertiary localities. The sandstones and conglomerate, or rather grit, line the eastern shore of the bay for some eight or ten miles, extending back eastward to Whatcom and Samish lakes. The trend of the bay is north and south; the apparent strike of the rock about east and west; and the dip, where any is visible, is to the north, at various and generally very great angles. It is, therefore, evident that foldings and dislocations have taken place here to an extraordinary extent. The measurements made by Lieut. Trowbridge, United States Engineers, published by Prof. W. P. Blake in the fifth volume P. R. R. Reports, comprised but a small portion of the entire shore, and even in that distance exhibited unmistakable foldings. He found, in a section of only 2,000 feet, seams of coal amounting to 110 feet in aggregate thickness. It is true that in this portion the greatest number of beds occur, but others are found some miles below, having the same direction, and it is probable that even here they are duplicated. The examination that I made of the shore line was a very superficial one, conducted chiefly in a canoe, and the results are far less satisfactory than could be wished; but the confusion of these rocks is such that a much more careful study might fail to disentangle it.

Three seams were opened some years ago; but, owing to various discouragements, among others the great importation of foreign coal into San Francisco, two of them were abandoned, and the other has but lately been worked to advantage. This is the mine of the "Bellingham Bay Coal Co." at Sehome, about half a mile below the village of Whatcom. The width of the seam here is fifteen or sixteen feet, the dip northward is 42° . The first drift carried in was horizontal, on a level about twenty feet above high-water mark. This was abandoned, and a shaft

sunk fifty feet below it, with an inclined plane, from which other drifts have been worked. The coal seems to be somewhat displaced, rising and falling, but without actual fault, and the bed has been traced back two miles to Whatcom Creek. The cover of the mine is a soft greenish sandstone or arenaceous rock, very similar to that imbedding some of the fossils at Nanaimo. The engineer in charge stated that there were five layers of coal separated by thin seams of fine clay, and differing somewhat in quality. Like all the lignites of the Pacific, it is bituminous. Dr. Newberry's analysis gives for its constituents, fixed carbon 47.63, bitumen 50.22. It exhibits a very clear fracture, and bright appearance when recently excavated, but does not bear exposure to the weather, like the older coals. It has been largely used on the sound by steamers, and considerable quantities have been shipped to San Francisco for the same purpose; but is, as may be supposed, very inferior to true coal, as it consumes with greater rapidity, and gives less actual heat, while the amount of ash is in excess.

Mr. Fitzhugh, the agent of the mine, informed me that at the outcrop he found cones and leaves of firs (probably *taxodium*) in the shale, but no other fossils. Some 400 feet down the slope, a slab of coal was taken out, some three or four feet square, having a distinct branch of fir with twigs and cones upon it; but it was, unfortunately, broken up by the miners. A very fine specimen of fossil resin or amber, forming a seam in the coal, is among the collections of the Survey.

Immediately in front of the mine, upon the beach, between high-water and low-water marks, are the upturned edges of a stratified sandstone, entirely unconformable to the rocks of the bank, as it dips westward under the bay at a moderate angle, and has a strike north and south. It is noticeable in connection with the occurrence of a similar rock having the same strike, but with a much greater dip, in the small cove within Bellingham.

though inclining to the opinion that it is of the latter age, in which belief the locality sustains him.

ARCHIPELAGO OF HARO.

The group of islands lying between the Canal de Haro and the mainland, including Fidalgo and Lummi Islands, consists almost entirely of erupted rocks, trap, and serpentine, bearing upon their sides altered slates and conglomerates. As in the case of the coast mountains, they have been thrust up through sedimentary strata, and remains of sandstone are yet visible, unaltered, though greatly dislocated, on their northern shores. Thus, the northern end of Lummi Island, the portion of Orcas which includes Point Thompson and Point Doughty, the whole of Waldron Island, and the small islands in the Canal de Haro are of sandstone and conglomerate, while the rest of Lummi and Orcas, and all the others, are of erupted or metamorphic rocks; a line drawn from a little above Point Francis, about W. S. W., to the Sannitch peninsula being that of separation. Whether these sandstones belong to the tertiary, like those of Bellingham Bay, or to the cretaceous, like those of Nanaimo, and form the southern limit of that basin, no absolute conclusion was arrived at, the fossils collected being chiefly new; but Dr. Newberry, to whom they had been submitted, was inclined to the latter opinion, the more especially as the small islands known as the Lucia Group, a little to the north of Orcas Island, are undoubtedly cretaceous. It is noticeable that along the shores of these islands, slates, which in other parts of this district are rare, occur in abundance. They are greatly altered and contorted, and, in places, beds of several yards in thickness are included in the ejected rocks. These slates, I presume, are of older formation than the tertiary, and perhaps belong to the carboniferous era. Of the same age is, I suspect, the metamorphic limestone of San Juan Island, and that of Esquimalt, on Vancouver's Island. It

is well known that carboniferous rocks exist in the Sierra Nevada, and, although they have not yet been detected in the Cascades south of the forty-ninth parallel, there is reason to believe that the limestones and slates of the Chiloweynck, hereafter noticed, are of this age. Limestone is said to abound to the northward, on Malaspina Island, in the Gulf of Georgia, but of what character I have no information. The limestone of San Juan Island occurs in great abundance on its western side. It varies considerably in structure, from compact to crystalline, and is associated with an altered slate. In point of economical value it is of the highest importance, as no other locality of this material exists in this part of the territories of the United States. All the lime heretofore used on the Sound has been imported from San Francisco or Vancouver's Island. Dr. Kennerly, who visited the quarry, observed boulders which had been dug up from beneath the surface, planed and grooved as if by glacial action.

The only locality among these islands, excepting Lucia, at which fossils were obtained, was on the western side of Orcas, between Point Doughty and the Sannitch fishery. The rocks here consist of sandstones and conglomerates, with interstratified beds of shale, and have a dip to S. E., varying from 35° to 50°. The shales are of very considerable thickness, one bed being sixteen paces across. Vegetable impressions are numerous, and a few shells were also obtained, as also a fragment of a crustacean. The plants are described by Dr. Newberry, but the shells, unluckily, were lost or destroyed. A bed of coal was observed on the beach, beneath the sand, but, from want of tools, was not explored. It is said to be a very extensive one. Large quantities of petrified wood were also noticed. My visit here was made in a canoe, during a very stormy period of the winter, and was too much hurried to make any thorough examination. The Lucia Islands I was unable to reach, and for the speci-

mens collected from there I am indebted to Mr. P. C. West, of the United States Coast Survey. They consist of baculites, ammonites and inocerami, and were described in the report of Mr. Meek, who refers them to a newer member of the cretaceous than the beds of Nanaimo, or to that of No. 4 of the Nebraska series.

This archipelago, to which so much attention has been directed by the claim set up to it by Great Britain, is of considerable interest apart from its strategic importance. It consists of three principal islands, Orcas, Lopez, and San Juan, and of a number of smaller ones grouped around, and covering the several entrances. Within, the landlocked bays and passages afford sea-room for navies, their only fault being the inconvenient depth of water. Fisheries of the greatest productiveness occur along their shores, where the Indians, with their rude nets, catch an abundance of salmon. As regards agricultural advantages, San Juan is the most valuable, about one-third of its surface being arable land, and another fitted for pasture. Upon Lopez Island there is also a considerable tract suited for settlement. Orcas and some of the smaller ones are mountainous; Mount Constitution, on the former, reaching the height of 2,400 feet, and others, on Cypress, Fidalgo, and Lummi, ranging from 1,200 feet upward. The date of upheaval of these islands seems to have been contemporaneous with that of the coast range, or, at any rate, to have preceded the glacial epoch. Very well marked scratches and grooves are observable on the serpentine rocks at the south-eastern end of San Juan Island, apparently running from N. E. to S. W., and it may well have been that the interior basin was, during that period of elevation, filled with a mass of ice.

The terrace formation, which is of a later date, is not so remarkable among the islands as on the main. There are, however, two or three very well characterized terraced hills, one of which, on the inner shore of San Juan,

called Park Hill, is about 450 feet high. This is of sand and gravel, not cohesive, and a large part of the face has been excavated by water, and slid down. The southern face, which is free from timber, is terraced ; but the lines are neither so distinct nor so horizontal as the other. A number of sienitic boulders are scattered over it, and lodged on the bare rocks beneath. It is evident, therefore, that their transportation was subsequent to the drift, and that they were brought from a distance is shown by the fact that no sienite exists on any part of this group. Floating ice, therefore, must have come down from the northward after the subsidence, during which the drift deposited took place. Similar hills front the Strait of Fuca, on the south-east end of the island. The terraces follow their curves in horizontal lines, the benches being narrow and somewhat sloping, the banks inclined about 30° . The easternmost is about 250 feet in height, with three benches or terraces, besides its flattened summit. A swale separates this from another to the west, declining, as well as the hills, most steeply northward, on which side, and its ridge, numerous boulders have also lodged. These, like the blocks on Park Hill, are of light-colored sienite, and some of them of great size. A circular excavation in the swale may have been formed by the grounding of an iceberg.

NORTH-WEST COAST.

In contrast with the almost unbroken coast of Oregon and Washington Territory, that of British and Russian America, as already observed, is deeply indented with sounds, and complicated arms, or fiords, and the same is true of the western or Pacific shore of Vancouver's Island. Mr. Dana, in his *Geology of the United States Exploring Expedition*, first pointed out the restriction of this phenomenon to high latitudes, and its occurrence there upon both sides of the North American Continent, in Patagonia and Norway, and very forcibly reasoned that it must have

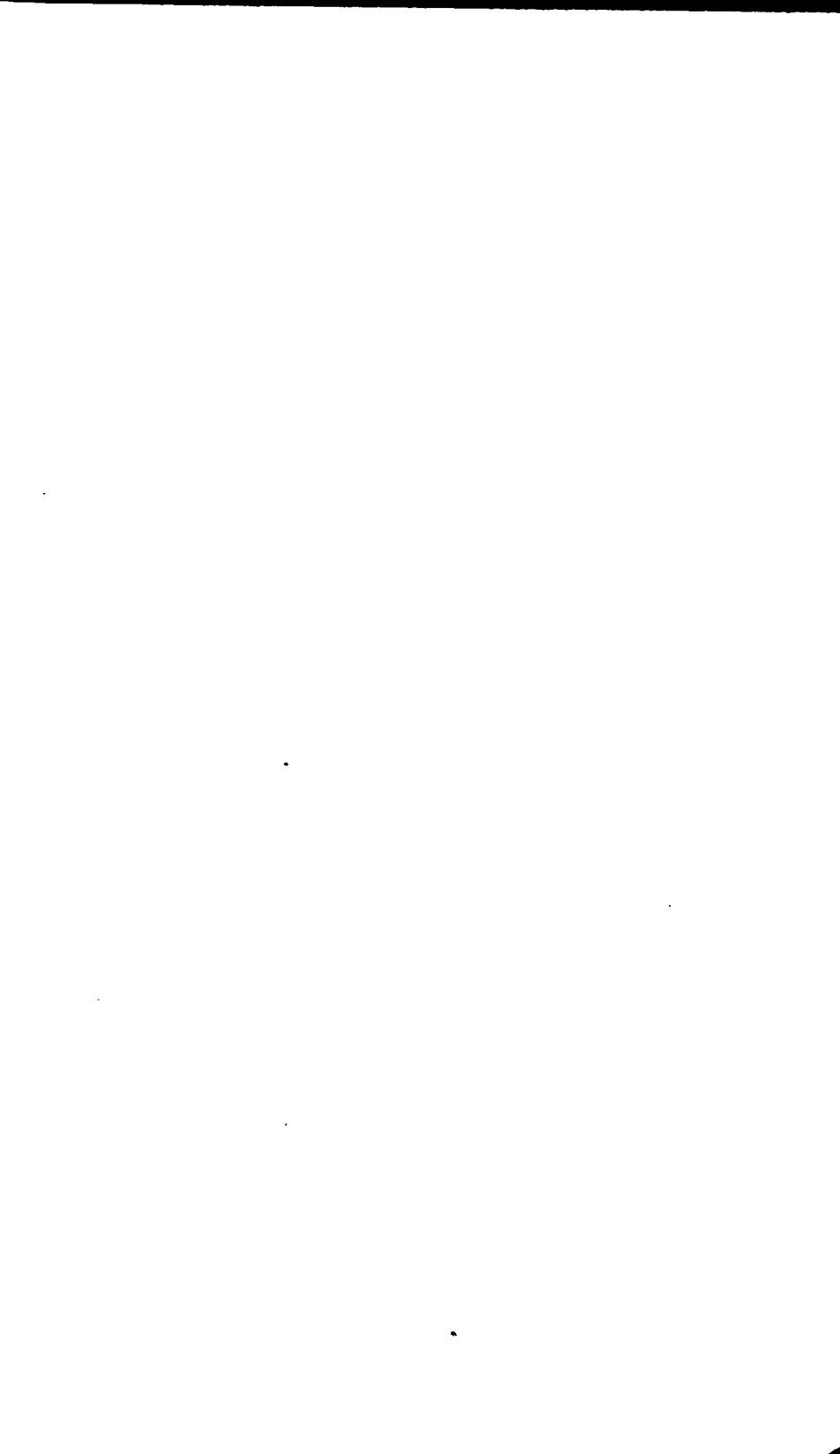
been effected by sub-aërial denudation, at a period when the continent was more elevated than at present, perhaps assisted by glacial action. The probable co-operation of this latter agency is strengthened by the existence of glaciers in some of the northern fiords, where even now they come down to the sea.

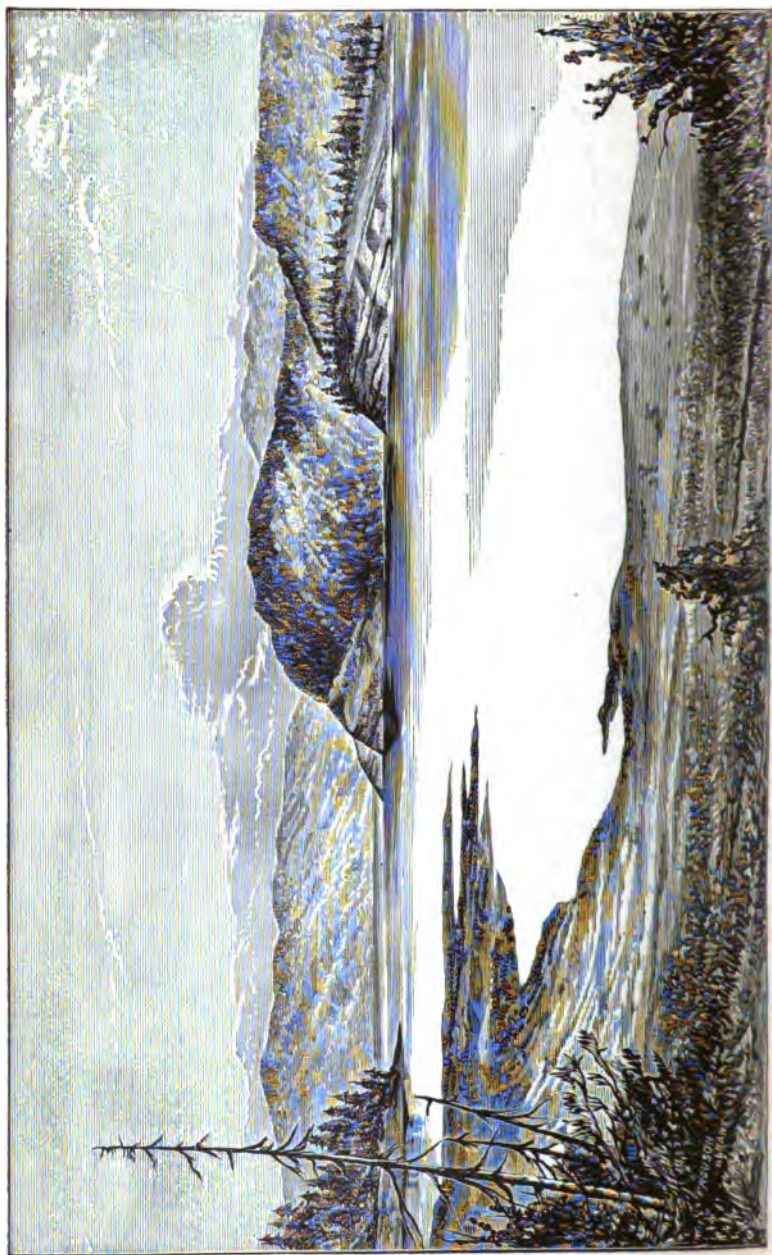
Governor Simpson, in his "Overland Journey," speaking of Wrangel's Strait and Prince Frederick's Sound, says: "The valleys were lined with glaciers down to the water's edge, and the pieces that had broken off during the season filled the canals and straits with fields and masses of ice, through which the vessel could scarcely force her way."

The fiords have a remarkable parallelism among themselves, but run diagonally to the course of the mountain-chains, and to those valleys which occupy their interior troughs, pursuing, in fact, the direction which the drainage of the mountains would assume in seeking the ocean. The exemption of the north-eastern coast of Vancouver's Island from these erosions, I presume, arises from the fact that the watershed is nearest it.

VANCOUVER'S ISLAND.

The interior of Vancouver's Island is comparatively little known. It is mountainous, and, besides being deeply indented on the coast-side, abounds in interior lakes. The mountains rise apparently to an equal altitude with those of the Olympic peninsula, of which they are a continuation; and are probably of the same constituents, or with a greater prevalence of granitic rocks. Around Victoria, at the south-eastern end, are sienite, greenstone, and serpentine; and at Esquimalt is also a limestone similar to that of San Juan Island. Among the boulders of Nanaimo River and Mill Creek, sienite, greenstone, and porphyries were common. Many of the rocks in place at Victoria are striated by glacial action, and sienite boulders of large size are scattered over the





VIEW ON ACTIVE PASSAGE, COWITCHIN ARCHIPELAGO.



ground. The grooves were north and south. Gold has been found on the island in small quantities, but so far has not repaid the search.

The soil about Victoria, off the immediate shore, is good, with a clay substratum, but it is confined to small valleys and glades, among the outcrops of rock. This portion of the island, the only part settled in 1859, in character of scenery, more nearly resembles the New England coast,—Rhode Island, for example,—except in the prevalence of timber, than any other section of the Pacific coast with which I am acquainted.

COWITCHIN ARCHIPELAGO.

The line of islands bordering the shore of Vancouver's, north-west of Orcas Island, which may be thus designated, together with a portion of the Sannitch peninsula and a strip of the main island, consists almost entirely of sedimentary rocks, sandstones, and conglomerates, with some shales, and but an occasional dike of trap. A cursory examination was made of these as far as Nanaimo.

The islands are high and broken, almost entirely of rock, with but a thin covering of soil, and the trees are stunted and unfit for timber.

The general dip is to N. N. E., or perpendicular to their trend, the upheaval being from the Vancouver side. Their inner walls are abrupt, and the included channels very deep. As regards the thickness of the formation, no definite conclusion was arrived at. A hill, which I ascended, on Galiano Island, was estimated at 1,000 to 1,200 feet; but if the one on Salt Spring Island is of the same materials throughout, it must reach twice that in elevation above the water. The rock on Galiano Island was a coarse conglomerate of rounded pebbles, underlaid near the water by sandstone. Conglomerates of this description, but varying in the size of the pebbles, are the predominating rock throughout. The sandstone is

generally in thick beds, and the shales, when they occur, are often several yards in thickness. I saw no indications of coal or any fossils.

NANAIMO COAL MINES.

This place is a small bay, on the eastern side of Vancouver's Island, in latitude $49^{\circ} 10'$, longitude $123^{\circ} 57' W$. It is the place marked Decanso on the old charts, a name given by the Spanish discoverers, Galiano and Valdez; that of Nanaimo is the appellation of the Indian tribe inhabiting the vicinity.

It is here that the principal mining operations of the Hudson's Bay Company have been carried on. A considerable amount of coal has been got out, but the works have been conducted with but little system, and in great measure by Indian labor.

The coal lies in two seams; the upper, termed the Douglas seam, four feet six inches in thickness; the lower, called the Newcastle, six feet. Both are accessible, being exposed at different points by the inclination of the strata, and the local destruction of the rocks overlying the latter. The two seams have been worked; the upper at the village, and to the south of it; the lower, on the small island called Newcastle Island, and now, also, in the northern part of the village, where a shaft has been sunk to meet it.

This latter is considered rather the best coal, as well as the most abundant and easily worked. The rocks accompanying both seams are sandstone, and a pebbly conglomerate, with shales, and a soft, green sand-rock, containing fossil remains. The coal is bituminous, makes a great flame, and consumes rapidly, leaving much less ashes than that of Bellingham Bay, and, in place of a friable slag, deposits a black and very adhesive clinker. Although somewhat superior to the tertiary coal, it is yet, owing to its light weight and rapid combustion, estimated, as I am informed by Mr. Davis,

Assistant Engineer, United States Navy, as thirty-three per cent inferior to Welsh coal for steaming purposes. It is, however, used extensively on the neighboring waters, and also exclusively for the production of gas at Portland, Oregon, and at Victoria, in both of which places works have been erected. The gas burns with a very white light, and is more fluid than that produced from the true coals. The amount of gas manufactured from a ton of coal is 8,000 or 9,000 feet.

The limits of this field are not determined. The extent already explored is considerable, and, if properly worked, would furnish a large supply for a large number of years, even if it should not be found to extend beyond the immediate vicinity.

DOUGLAS SEAM.

A more detailed section of the rocks overlying the Douglas seam, on the same authority, is as follows: It is that of the Nanaimo mine.

	Feet.	Inches.
Arenaceous, laminated rock of a grayish color, containing a small proportion of argillaceous matter, with occasional irregular seams and nodules of limestone.....	25	10
Indurated brown shale.....	25	6
Conglomerate.....	0	6
Coal.....	0	6
Shale.....	11	6
Coal.....	0	6
Clay.....	2	6
Coal.....	0	9
Carboniferous shale.....	0	6
Coal, principal seam.....	4	6

Above the Douglas seam, at the present mine, Mr. Robinson states there are five fathoms of conglomerate, where not denuded, as ascertained by boring, over which there are sandstones and shales.

Where already worked, there appears to be of the last not over one fathom ; but, nearer the shore, and probably interstratified with conglomerate, fifty fathoms.

There is no shale immediately over the coal. The dip of the bed at the village of Nanaimo is eastward, the angle varying from 25° inland to 45° near the shore ; on Newcastle Island it is south and south-east, but these inclinations are apparently local, there being no uniformity for any distance.

The Douglas seam has not been worked at Newcastle Island, though a shaft was sunk to meet it. This was opened near the level of the water, and struck the coal at three fathoms. From appearances it would seem to be covered by sandstones and conglomerates to the thickness of thirty or forty fathoms at the southern end of the island.

On Douglas Island, near Newcastle, a seam somewhat thinner, and of still better quality, is said to have been found, which is supposed to be superior in position to the Douglas coal.

NEWCASTLE SEAM.

A shaft has very recently been sunk at the village, where there is a local denudation of the superior strata, striking the Newcastle seam at a depth of fifteen fathoms.

The rock was here chiefly conglomerate, fine and coarse, interstratified with sandstone. Of the latter, the seams were comparatively thin. The coal was four feet six inches in thickness, disposed as follows :

	Feet.	Inches.
Sandstone roof, with partings.....	2	0
Coal	1	3
Earthy.....	1	3
Coal	0	6
Shale	0	9
Coal	1	0
Shale	0	3
Coal	1	0

The most extensive work has been done on the western side of Newcastle Island, a drift of about 250 yards in length having been carried in, nearly east, with seven oblique taps, making in all about 1,000 yards. The dip here is south at an angle of 20° .

The northern outcrop of the coal is in a bluff, bordering a sort of valley or ravine, beyond which the island is made up of similar rocks, but greatly disturbed. The following is a section of the bluff, the thickness being estimated :

	Feet.
1. Conglomerate bedded	36
2. Sandstone disposed to concrete in rounded masses.....	48
3. Sandstone more regularly stratified.....	12
4. Sandstone compact.....	4
5. Coal.....	5
6. Covered with debris, but probably consisting of coarse conglomerate	40
Level of bay.	

It is from this mine that the largest amount of coal has been got out, perhaps 8,000 tons, but it has been abandoned in favor of the shaft at the village.

The principal difference between the rocks here and at the latter place is that the conglomerate is thinner, with fewer pebbles and better stratified

FOSSILS.

A few vegetable remains have been formed above the Douglas coal at Nanaimo village, which are said to have been similar in character to those below the Newcastle. I obtained two or three specimens, but they crumbled before they could be compared. On Newcastle Island, near the water's edge, and superior to both seams, vegetable impressions and shells, of which a number of specimens were collected, occur in shale; among the latter were *Dosinia tennis*, *Meek*, *Pholadomya subelongata*, *Meek*, and a species of *Tancredia*, the two former being

identical with the specimens obtained on Nanaimo River, in connection with an inoceramus.

The only fossils yet found between the two seams were, it is said, very small marine shells, resembling in form the common cockle, now found in these waters. I was not fortunate enough to obtain any of them.

Some vegetable impressions, including "aspidium Kennerbyi," Newberry, were obtained from the seam of clay, interstratified with the Newcastle coal, in the new shaft at Nanaimo village, the first instance of any being found *in* the coal.

They are numerous below that seam, and, where I examined, consisted for the most part, of ferns and a *taxodium*.

This place, which is a steep bank bordering the ravine behind the village, presents the following section, the heights being estimated.

	Feet
1. Conglomerate	30
2. Coal dip 2.25, perhaps the Newcastle seam thinned out..	1
3. Conglomerate	15
4. Greenish sand-rock containing plants	4
5. Conglomerate	10
Level of marsh covered at high tide.	

On the north side of Mill Creek an opening has been made, near the foot of the high bluff, in a stratum of soft sand-rock, also containing vegetable remains. The impressions resemble those above the Douglas coal, on Newcastle Island. No shells were observed. The shale dips in the direction of the island, about N. E., at an angle of 20°. The relative position of this I could not determine. A salt-spring has been found on the border of this creek, and preparations were making to work it.

Newcastle Island bears marks of a recent elevation in the sandstone on the western side, which has been cut into holes and irregular cavities by water at a height several feet above the present tides, the edges and parti-

tions being very sharp and apparently new. The same excavations were noticed on the inside of Galiano Island.

NANAIMO RIVER.

I ascended this stream for about two miles. The rock, in places where it was visible, along the banks, was sandstone and conglomerate, the prevalent dip being to the east, at various angles; but this direction was not uniform, there being frequent displacement. At the point mentioned, shells were found in the shale upon the right bank, principally *Dosinia tennis*, *Meek*, *Pholadomya subelongata*, *Meek*, and an *inoceramus* not sufficiently perfect to identify.

The river here ran east and west, and the strata dipped into it at an angle of 20° . It was impossible to obtain any satisfactory section, from the fact that the bank was mostly covered.

The bed of this stream is of sandstone, and its depth very irregular, being excavated here and there into deep holes. The rock, when near the surface, exhibited very good examples of the manner in which cavities of irregular and singular shapes are worn by the attrition of two or three stones, their channels running into one another.

From the above facts, it would seem that the entire group of Nanaimo rocks is cretaceous, at least so far as includes all the coal heretofore exposed.

KOMOOKS FOSSILS.

The locality from which these were derived I do not know, except that it is some distance to the north-west of Nanaimo. They have, I believe, been brought down only by Indians, who find the calcareous nodules, in which they are contained, washed out from clayey banks. The specimens in the collection of the survey were presented by Mr. Robinson, to whom I am also indebted for various others from Nanaimo, and for many of the above facts. The genera obtained from this locality, including

also some in the Smithsonian collection, embrace *arca*, *inoceramus*, *cardium*, *dentalium*, *baculites*, *helioceras*, *ammonites* (four species, of which one is identical with a Lucia Island ammonite) and *nautilus*.

BEAVER HARBOR.

At Beaver Harbor, near the eastern extremity of Vancouver's Island, an extensive bed of surface-coal was formerly worked by the Hudson's Bay Company, who thence procured the fuel for their trading steamer. I have seen no fossils from there, and have no information as to its probable age.

The existence of cretaceous rocks on Vancouver's Island was, I believe, first made known by Mr. Meek, in a paper read before the Albany Institute in 1856, and published early in 1857,* based upon specimens received through Dr. Newberry, from the Smithsonian Institution. The collection, as rightly conjectured by Mr. Meek, was derived from two different members of the formation, though both were described as from Nanaimo. I have, however, very little doubt that those contained in the argillo-calcareous concretions were from Komooks, and only those found in the brown or greenish sandstone from the Nanaimo beds. Mr. Meek's first impression was, as appears in the paper referred to, that all were cretaceous, though as to the latter he expressed some hesitation. Subsequently he was inclined to the view that the Nanaimo fossils might be Iurassic, and so stated to Dr. Newberry in a letter quoted by him in his report to Lieut. Williamson. On receiving, in 1858, the specimens forwarded by me, in which the plants of Nanaimo were found associated with *inoceramus*, *goniomya*, etc., both these gentlemen agreed in the conclusion that the formation at that locality also was cretaceous. The equivalent to the Komooks beds, to which is now added those of

*Transactions Alb. Inst., vol iv.

Lucia, was recognized by Mr. Meek in 1856, as to be found in No. 4 of the Nebraska series, described by himself and Prof. Hall,* and in other papers by himself and Dr. Hayden, and believed to be synchronous with the white chalk of the Old World.

The Nanaimo sandstone fossils he considers as older in the series. It is noticeable that the plants of this locality are of types believed by many to be no older than the tertiary.

QUEEN CHARLOTTE ISLANDS.

But few notices of the geology of the northern coast appear in any work to which I have had access. The Queen Charlotte Islands, which are represented on the ordinary charts as a single island, form in reality a group, and, as before stated, are, like Vancouver's, a continuation of the Coast range. Very little is known of them, as the number and ferocity of the inhabitants have hitherto prevented any examination. As early as 1853, attempts were made to pursue the search for gold, which was found to exist there, but they resulted disastrously. It was found in quartz at Mitchell's Harbor, in lat. 52° 25'. Capt. Stuart, of the Hudson's Bay Co.'s service, informed me that specimens of antimony and arsenic, probably arsenical pyrites, were brought by the Indians, it was supposed from Kummeshaw, and that copper was found on the small island off Pt. Frederick.

The slate from which pipes, dishes, and ornamental articles are made by the natives, is, according to them, found near the canal separating the two largest islands, not far from Skittegets; and specimens of lead ore, black-lead and arsenic were reported as from the same neighborhood.

The north-east end of the group is said to be level and heavily timbered, with marshes and lakes interspersed.

*Trans. Am. Acad. A. and S., vol. v.

Brown coal is found in several places, one on the north end, another on the east side; which renders probable the northerly extension of the tertiary rocks of California and Oregon.

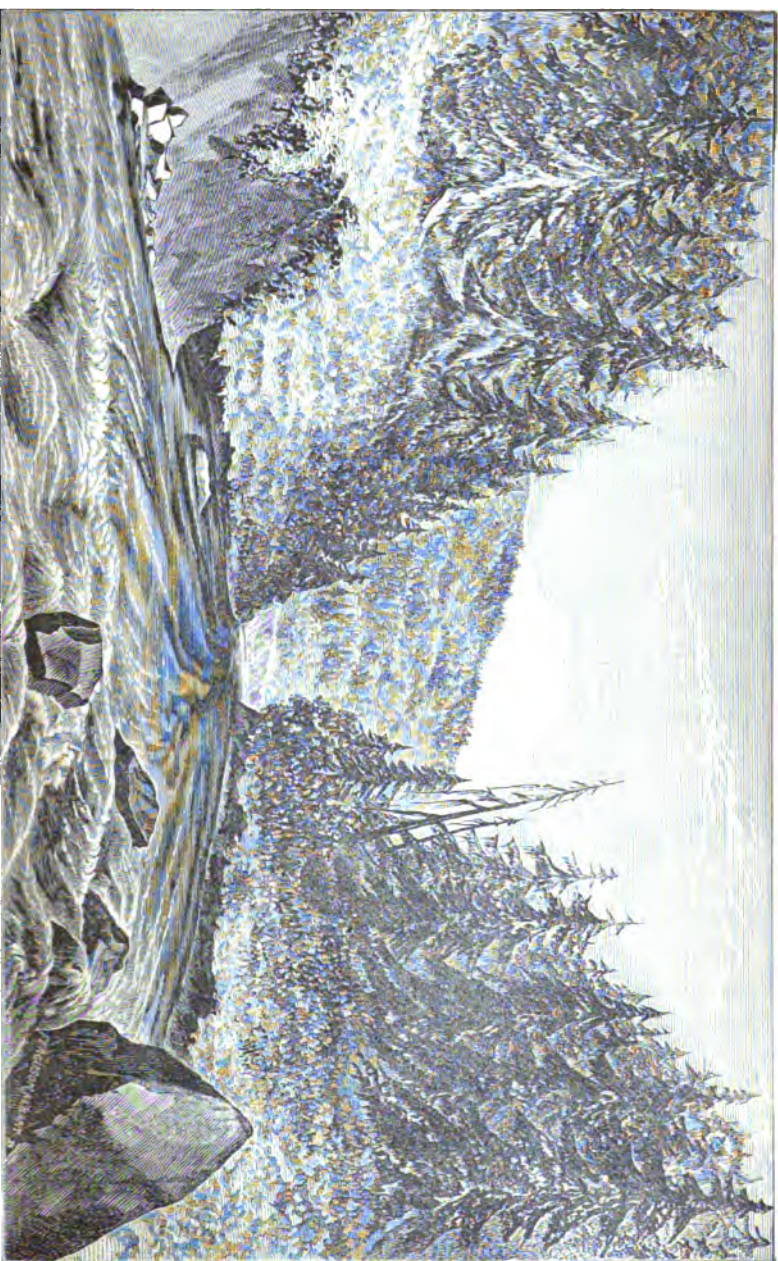
SKAGIT RIVER.

This is the largest stream entering the sound, and the only one, between the Columbia and Frazer River, which cuts through the main range of the Cascades. It has its source in what I have called the Eastern Cascades, near that of the Similkamen, and the small stream entering Frazer River below Fort Hope.

In company with Mr. Grennan, of Utsaladdy, I ascended it in a canoe, at the end of July, 1858, as far as its exit from the cañon, about seventy-five miles above its mouth. The river was then in full freshet, and for a long distance a quarter of a mile wide, very deep and rapid. At its mouth is a delta of low alluvial land, intersected by numerous channels, and for some miles farther the banks are subject to overflow. A little above, where the mouths diverge, commences a series of rafts of drift-timber, three in number, and in the aggregate a mile and a half in length, immovably fixed and utterly stopping the navigation.

But for this obstruction, light-draught steamers could navigate it for a distance of nearly fifty miles. A large body of very rich land lies on the lower part of the river, much of which is, however, heavily timbered. About fifty miles up, a branch enters, having one of its sources in Mt. Baker, and ten miles beyond is the south fork, or Sakumihu, up which is an Indian trail to the Columbia by way of Lake Chelaun. Near the former, called the Hukullum, the river becomes narrowed, the hills setting in and rapids commencing, though there are still long stretches of smooth water.

The cañon of the Skagit, by which it passes through the Cascade range, is by report some eighteen or twenty



EXIT OF THE SKAGIT RIVER FROM THE CANYON.

miles in length. Rapids and falls of some height occur in it. The scenery is exceedingly picturesque, the mountains rising directly from the river in abrupt and rugged forms, but covered with forests.

The general range of the mountains bordering the Skagit seemed to be from N. E. to S. W., not running in continuous chains, but attached parallel ridges placed in echelon. On the lower and middle parts of the river they exhibited long sweeping lines, with pretty steep declivities, say from 30° to 40° , and very generally capped with regular cones. Higher up they were more broken, and snow peaks were frequently visible.

One very remarkable mountain, called by the Indians Hugweht, apparently overhangs the water on the right bank, some miles above the Hukullum.

It was apparently of basaltic conglomerate. Mt. Baker is seen from only two or three points, and presents an entirely different form from that seen from the sound, its summit being roof-shaped, instead of pyramidal.

At the time of my visit, reports of the existence of gold on the Skagit, and the hope of finding a route to the Frazer-River mines, had led quite a number of persons to ascend it.

The color of gold was found in one or two places, but no favorable indications.

The height of the water was, however, an obstacle to any thorough prospecting. Bluffs of drift, overlaid with blue clay, occur at intervals along the river, corresponding to those on the sound, and in one of these I noticed, near the level of the water, a seam of ligneous matter, about a foot in thickness, having a slight easterly dip. The bluffs are sometimes 300 or 400 feet in height, and very uneven on the surface, but the general stratification is horizontal, or nearly so, and no great changes have taken place since their deposit.

The first rock in place occurs some twenty-five miles from the mouth, a little above the crowning of the pre-

posed military road to Bellingham Bay. It consists of argillaceous and mica slates, the latter with veins of quartz, very much tilted and often contorted, having a general strike of N. E. and S. W., in conformity with the apparent range of the hills.

In the bed of the Hukullum I obtained specimens of vanon, colored porphyritic trachytes and scorixæ, brought down from Mount Baker, and which may probably form the sharp and ragged spurs which break off from that mountain.

The color of the water here is a dirty white, caused, I presume, by volcanic ashes held in suspension, contrasting with that of the Skagit, which, though itself discolored by the freshet, was of bluish hue.

Some miners, also, had ascended it, for a couple of days, to within a short distance of the snow, described it as passing through a cañon, narrowed at one point to twenty feet. Its heads were in the gorges which score the sides of Mount Baker.

At the foot of the mountain was a level plain two or three miles wide, of black volcanic rock and sand, upon which were vast piles of half-burned timber, apparently swept down by a current of, as they supposed, lava, but more probably water.

A stream of lava was visible on the side of the mountain, and also on this plain, and sulphur was found scattered over its surface. They saw smoke ascending on the eastern side, about two-thirds the distance above the snow line. The Indians living on the river told me of an eruption of Mount Baker, many years since, doubtless the same which Mr. Yale has referred to, as elsewhere mentioned.

I noticed no trachytic boulders above this stream. The slates continued for some distance, when they were succeeded by sienitic quartz ore and felspathic rocks. The boulders consisted of the usual variety of crystalline and porphyritic rocks, serpentine, actinolite, and slates.





ANSELMO ALBANI

VIEW ON FRAZER RIVER — ABOVE FT. HOPE (looking down).

In crossing the mountains, during the subsequent season, I had an opportunity of examining this river, above the cañon. It presents, on a small scale, a very remarkable parallelism to Frazer River. Heading, as before mentioned, east of the true Cascades, in about the latitude of Fort Hope, it pursues, at first, a southerly course in a trough between the two ranges, and, cutting diagonally through the main range, runs westerly to the sound.

Its valley above the east fork, where the passage through the mountains commences, is narrower, not exceeding a mile in width, and consists of level tables or terraces, rising to the mountains on either side. This bottom, which is twenty or twenty-five miles in length, and separated into two basins, is stony, with but little soil, except here and there on the bank, and most of the timber is thin and scrubby.

FRAZER RIVER.

Frazer River, which, down to Fort Hope, in longitude $121^{\circ} 30'$ and latitude $49^{\circ} 27'$, somewhat over 100 miles from the coast, pursues a general southerly course, there turns suddenly westward, emptying into the Gulf of Georgia, in about latitude $49^{\circ} 6'$. Its volume of water is nearly as great as that of the main or north fork of the Columbia above Walla Walla. Besides several minor tributaries, it receives, below Fort Hope, two large ones, both entering from the north,—Pitt River, about twenty-five miles from its mouth, and Harrison River, some thirty-five miles further, each being the outlet of a large lake. Pitt Lake is said to be about twelve miles in length; Harrison is about twenty-five or thirty. They both fill deep gorges in the mountains, which rise abruptly from their banks, and in many respects bear a strong resemblance to the fiords of the coast.

The latter is fed by the Silowat, on the upper waters of which is another similar expansion, connecting by a portage, and another chain of lakes, with Frazer River, about

100 miles north of Fort Hope. These two add, of course, a considerable part to the ultimate volume of the main stream.

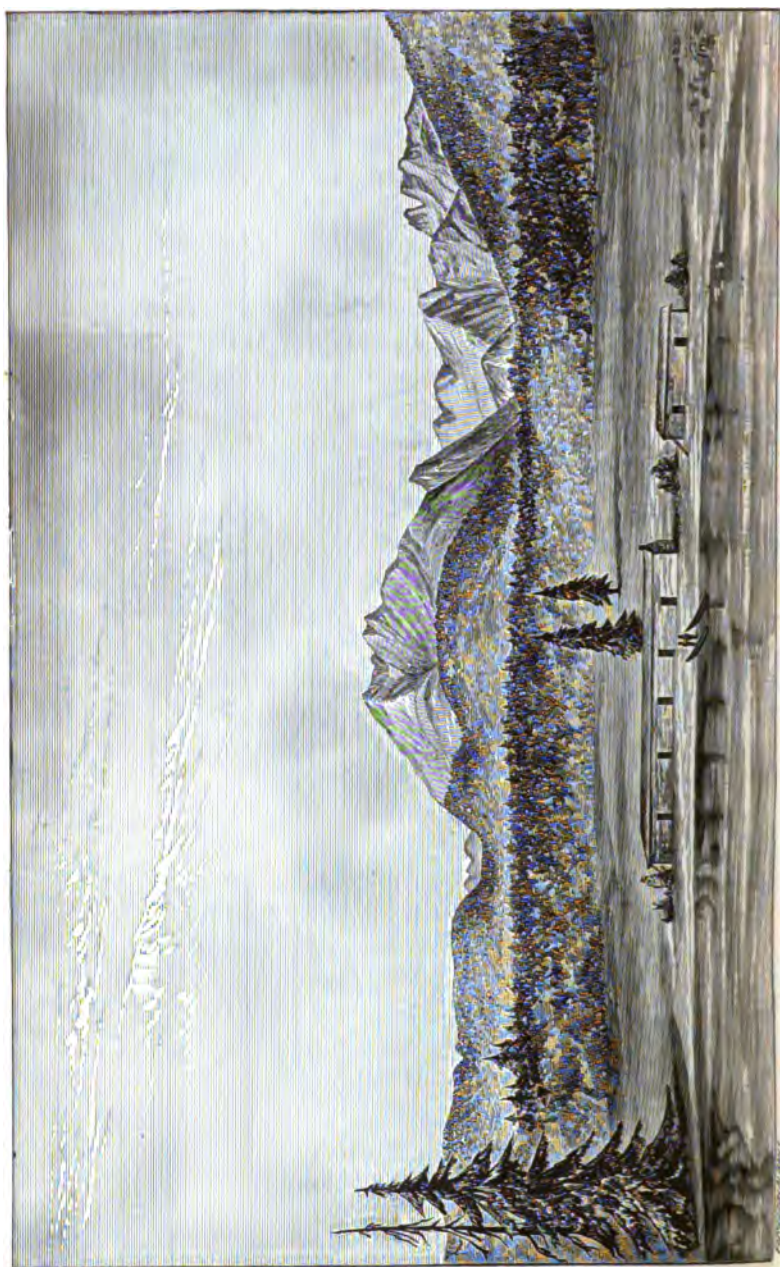
The entrance of Frazer River into the Gulf of Georgia is marked, as might be expected, by shoals, the deposit of its freshets. An extensive tract of alluvial land, for the most part wet and unfit for cultivation, lies between its mouths, and, on the south, reaches to Siniahmoo Bay. Another mouth would seem, indeed, formerly to have entered that bay, leaving Point Roberts as a separate island.

The immediate banks of the river are chiefly alluvial for a distance of fifty or sixty miles, and are overflowed in the summer season. They are covered with cottonwood and a thick growth of willows. Back from the water are a few small prairies, of which the largest are around Fort Langley, and on the Sumass and Chiloweynck. The low lands much resemble those on the Lower Columbia.

The prairies are rich, having about a foot of black mould, with a subsoil of clay and sand. As they also are, to a great degree, subject to flood, the amount of land fit for cultivation is to be measured rather by acres than miles.

It is here, between Burrard Inlet and the Nook Sakh, and extending from a little above the Chiloweynck to the mouth of Frazer River, that the only level country in British Columbia is to be found.

The river, for a great part of the distance to Fort Hope, spreads out into numerous channels, some of them dry at low water, having extensive "bars" of sand and gravel, and low islands between them. It is often, in fact, two or three miles between the extreme banks. The influence of the tides is felt as far as the Sumass, fifty-five miles up, where the first rapids occur. Thence to Fort Hope the average fall is from sixteen to eighteen feet per mile.



THE LANOLEY BUTTE, FRAZER RIVER.

The valley becomes permanently narrowed at eighty miles, mountains setting in on both sides.

Above Fort Hope the river itself is contracted in its passage through the gorge of the mountains.

Here the rapids become much more frequent and difficult, and near Fort Yale the first falls occur, beyond which, even canoe navigation is highly dangerous, and at times impracticable.

The freshets commence, according to the season, from the middle of April to the beginning of May. The water reaches its height toward the end of June, and remains up until some time in August. As near as I could judge from the water-marks, the rise at Fort Hope must reach twenty-five feet.

Our first visit to this river was in March, 1858, where a canoe party, consisting of Mr. Gardner, Dr. Kennedy, Mr. Peabody, and myself, ascended as far as Fort Yale, fifteen miles above Fort Hope. At this time reports of the discovery of gold upon its banks had just reached the lower country, and we met, on our return, the earliest parties who were proceeding to explore it. The only whites then resident were those belonging to the Hudson's Bay establishment of Fort Langley, and the small post at Fort Hope. We had amused ourselves, as we paddled round the bends of the river and coasted the shores of Harrison Lake, in speculating upon the time when the stroke of the axe, or the dash of wheels, should awaken unknown echoes among the mountains, little suspecting that in a few months steamers would run in opposition-lines upon those waters, that the tongue of half Christendom would be heard there in chorus, and the uncouth utterances of the Indian be rivalled by those of the Chinese.

The country on the Upper Frazer, or that above Fort Yale, was not examined by any of our parties, but from the description of others it is not such as to invite settlement.

On the west side of the river there are high rocky mountains, covered with snow in June.

On the east side, above the great cañon through which it passes the mountains, it consists of table-land 1,000 to 1,500 feet in height, timbered only in the ravines, unfitted for agriculture, but affording good grazing.

The cold in winter is intense, but the amount of snow not very great. Ice does not disappear altogether until April.

Farther north, the winters are represented as almost Arctic in severity and duration.

The whole country between Frazer River and the coast consists of mountain-ranges extending in a direction N. N. W. and S. S. E.

These, where they do not reach into the region of perpetual snow, are, as in the Cascades, covered with forest. They present the aspect of heavy masses, with steep slopes down into narrow valleys, or rather gorges, their crests being often surmounted by sharp and angular but sometimes mamillary points.

The passage of Frazer River through the mountains, though perhaps inferior to that of the Columbia, is still a scene of rugged and desolate grandeur. The forms of many of the summits are singular in the extreme. The forests which hang on their sides are broken by escarpments of rock, and the river, itself compressed within narrow walls, rushes through as if impatient for the liberty of the ocean.

The common rocks throughout these mountains are granitic, sienite being most abundant, true granite, as usual, less so. Diorite and eurite were occasionally noticed. Quartz alone, however, is the constituent of even mountain-masses. Almost all of these contain pyrites, giving them, when exposed, a general sombre hue. Talcose slate occurs on the east side of Harrison Lake, at the peninsula, pudding-stone at a single locality near Fort Hope.

I have elsewhere spoken of Burrard Inlet as constituting the northern boundary of the drift. This formation is not conspicuous on Frazer River, but still shows itself at various points, as in a range of up and crossing it below the mouth of Pitt River, and again at Fort Langley. It occupies much of the country between Frazer River and the Nooksahk. Point Roberts is a detached mass of it. As a general thing, the constituents of the drift here are finer, containing more sand and less gravel than farther up the sound.

I saw nowhere any tertiary rocks, though doubtless they underlie the lower basin of Frazer River. Since the commission left this part of the country, coal has been reported on Burrard Inlet, but whether it belongs to the miocene or cretaceous I have not heard. Its geographical situation would point to the latter: Metamorphic slates were noticed at several points on the river, seemingly resting against the sienite; as, for instance, at the foot of the isolated mountain near the mouth of the Sumass.

The mineralogy of Frazer River, apart from the gold, is uninteresting. Native copper has been found in small quantities, and a silver-mine was reported to have been discovered above Fort Hope; but the specimens furnished me for examination contained nothing but galena. The gold placers have been so largely developed since our visit that I do not venture to describe them.

The history of exploration here, as well as in California and Australia, is one to which new chapters are daily added. The metal found below the cañon was in fine particles, showing the distance of its origin, and was soon exhausted by the swarms of miners who poured in during the earlier excitement.

Amidst many discouragements, the search has been extended up the river to its remotest sources, until, in the extreme north, where the severity and duration of the winters is appalling, and all transportation is on the backs

of the Indians, it has been found in an amount and in such large masses as to recall the palmy days of California and Australia. As usual upon the Pacific coast, platina is found associated with it.

At the lower end of Harrison Lake, near the outlet, a hot spring bubbles up among the rocks, close to the water's edge, emitting a very perceptible odor of sulphur, and having its peculiar taste. Having no thermometer reading over 130° Fahr., we were unable to ascertain the temperature, which much exceeded this, being probably not less than 180°. Some of the water was brought off for analysis, but the bottles containing it were unluckily broken. A qualitative analysis of the deposit, made by Dr. Wolcott Gibbs, gave oxide of calcium, anhydrous sulphuric acid, and a tolerable quantity of binoxide of silica and chloride of sodium, with smaller parts of sesqui-oxide of aluminium, sesqui-oxide of iron and oxide of manganese.

The changes occurring on the bars and low islands of this and other similar rivers present many points of geological interest.

In places a recent deposit of sand or silt, a foot thick, covers the sod or vegetable accumulation of previous years, willow and brushwood protruding through it. Elsewhere trunks of trees are seen in the banks, imbedded to the depth of several feet. Sometimes large piles of driftwood, including immense trees, lodge upon the bars, and the eddies caused by the freshets excavate beneath them deep hollows, into which they settle down.

At the time of our ascent, masses of ice were lying upon these flats, melting in the sun or rain, and leaving deposits of earth and stones, which they had brought with them, as well as deep furrows ploughed up in their progress.

The surface of many of the gravelly bars, in fact, looked like a potato-field after harvest. Ascending the river, the change in the size of the detritus was noticeable.

Above the Sumass, the bars, which had been exclusively of sand, became gravelly; farther up, the gravel was succeeded by pebbles and cobble-stones, and on entering the mountains, near Fort Hope, irregular masses of rock, often of large size, line the banks; some fallen from above, others transported by ice. Immense numbers of the skeletons of salmon, which had drifted down exhausted by spawning, were scattered over the bars, the vertebræ sometimes connected, sometimes broken up, and the bones perhaps lying in piles, where birds had been feeding. Leaves of various trees were also plastered over the stones. On the sand and mud, besides these remains, were footprints of men, dogs, and birds, and cracks produced by drying in the sun. All these were in store for the geology of times to come.

WESTERN SLOPE OF CASCADE RANGE.

The Chiloweynck and Nooksahk, secondary streams, run in transverse troughs between spurs, and do not serve any range. It is noticeable that the upper and middle course of these streams are exactly parallel to each other, and the Skagit, and some of its branches opposite, and likewise nearly parallel, make, as it were, acres of concentric circles around Mount Baker. Another point observable is, that Frazer River, the Nooksahk, and Skagit, as they approach the coast and enter upon the lower table-land or alluvial bottoms, all deflect from their westerly course and turn south-west at nearly the same angle. The cause of this uniformity, for cause there must be, I have failed to detect, unless it be in the tendency of rivers to conform their course toward the point of ultimate *debouchement*.

Thus, the Strait of Fuca being the common outlet of all these waters, and the ebb, aided by the river-current, being stronger than the flood, the mouths of the streams have, where from the nature of the ground they could be affected, varied in that direction. The course of the

Skagit, at a superficial view contradicting this, really corroborates it, as its waters pass round to the south of Whidbey Island. In like manner the Swohomish, and other streams emptying farther up the sound, run toward the north-east.

The mountains nearest the coast appear to have been formed by the intrusion of igneous rocks through the sedimentary strata of the Puget-Sound Basin, slates being prevalent to a height of at least 4,000 or 5,000 feet, or to that of the main divide between the Chiloweynck and the Nooksahk. Mr. Custer found slate and limestone on the summit of Signal Peak and dolomite on that of Layomesan.

Following up the Chiloweynck, limestone and slates are the prevalent rocks.

These are usually much altered and upturned at various angles. I saw no fossils in place, but two fragments of limestone were found in the river, including organic remains; one crinoid, the other a coral, which, in Mr. Meek's opinion, were either Devonian or carboniferous, but they were not sufficiently characteristic to identify them with certainty. I suspect that the latter hypothesis is the true one, and that they here represent the carboniferous rocks of the Sierra Nevada; the crystalline limestones of the Chiloweynck, like those of San Juan, being merely altered forms of this epoch.

On the Nooksahk, near the mouth of the Cowap Creek, Mr. Custer found numerous fragments of slate containing vegetable impressions in a high bank, which Dr. Newberry recognized as tertiary, and similar to those of Bellingham Bay.

The mountains between the Chiloweynck and the Nooksahk were explored by Mr. Custer. The average elevation of the general divide is about 5,000 feet, the peaks reaching 6,000 to 7,000, with a few as high as 8,000 or 9,000 feet.

It is noticeable that the highest are not situated upon

the main divide, but upon spurs. The watershed is nearest to the Nooksahk, and the streams running into it are, of course, short and excessively rapid.

The affluents of the Chiloweynck are themselves torrents, their descent being from four to five feet in a hundred.

The scenery of this region, as might be supposed, is wild and picturesque to a degree. The higher peaks rise in almost acicular points of naked rock, accessible only to the foot of the mountain goat; broad snow-fields, which hardly yield to the last heat of summer, are interspersed on the more level summits, or lie in sheltered basins; precipices of tremendous height overhang the heads of the streams, among which are inclosed small but deep lakes; cascades leap down the sides of the mountains, and spread over the lower ranges is the deep forest of evergreens.

On the south peak of the Tummeakai, just at the line, a fall of forty or fifty feet in height marks the boundary, and others above it make in all some two hundred feet. On the west side, a few miles below, are two cascades falling into it, from the mountain, one of 100 the other of 150 feet.

A still grander scene is at the Putlushgohap Lake, on the eastern fork of the same stream. There the mountain overhangs the water in an almost perpendicular bluff of 1,000 feet; cascades, some of them nearly half that height, fall in spray from its sides; the lake itself, towards the end of June, was still sheeted in ice and snow, and its outlet was a continuous fall of nearly 1,000 feet in half a mile. Above the noise of the stream the roar of avalanches was heard at intervals.

CHILOWEYNOK RIVER AND LAKE.

The boulders in the lower part of the Chiloweynck were chiefly gneiss, sienite, greenstone, felspathic porphyry and earthy jasper, with a finer gravel of slate. The first granitic rocks noticed, on ascending the river, were on the Senehsai, about half-way between the bend of the river and the lake.

The rock there was on the south side sienite ; on the north, quartzite, gneiss, and sienite, with some slates ; and upon a high peak, ascended by Mr. Custer, sienite, quartzite, and diorite. Around the lake the mountains are almost entirely sienite, externally blackened by the decomposition of pyrites.

In its feeders, however, were pebbles of argillaceous and felspathic porphyry.

The Chiloweynck constitutes the most favorable access to the parallel through the mountainous region south of Frazer River, one of the tributaries of the lake from which it issues heading in the Chuchchehum Pass, in the immediate neighborhood of the line..

This stream enters Frazer River near the point where the level country ceases, turning suddenly from its westerly course northward round the foot of a range of hills.

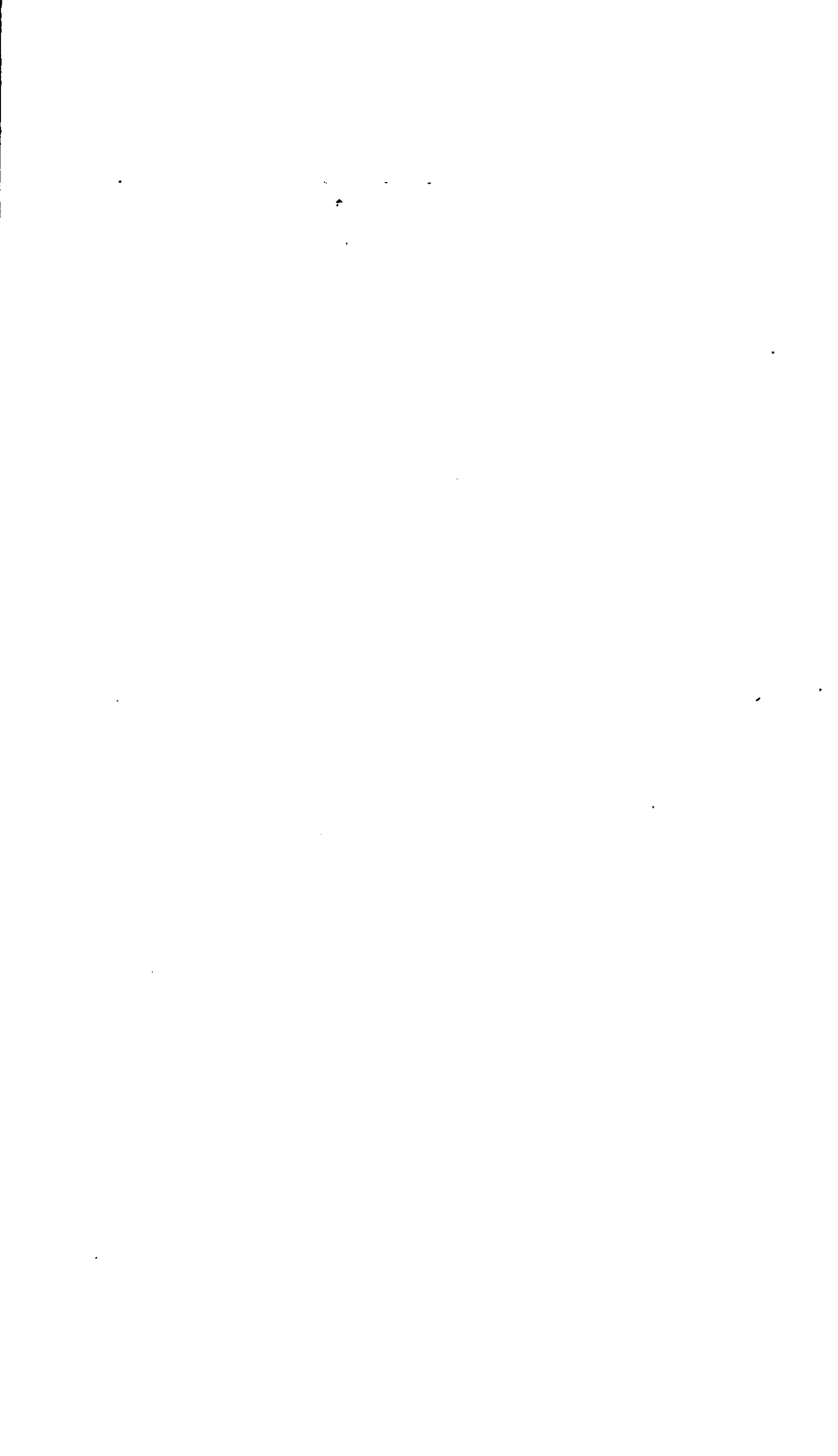
At its mouth is a tract of prairie-land, of some extent compared with the rest of this region ; but, as usual, it is liable to flood. Above its bend it has no valley, the hills coming down close on either side, and leaving only occasional bars. Throughout, it is a bold and rapid torrent, though without any actual falls, the water running over a bed of boulders with an average descent of about fifty feet to the mile.

Camping on its banks, one hears at night the noise of these stones moving over one another, often resembling the human voice, and can hardly wonder that imaginative races have peopled such streams with spirits and demons.

The lake is about five miles long, and its height above



VIEW ON CASCADE RANGE—FROM CHILOWEYNCK RIVER, NEAR 48th PARALLEL.



the sea over 2,000 feet. It is environed by mountains, the peaks of which reach an elevation of 5,000 or 6,000 feet above its level, and are covered with snow-fields and glaciers. Its waters are very deep, clear, and transparent, and the views it presents are almost unequalled, even in this region of wild and solitary grandeur.

While stationed at the depot, near the upper end of the lake, I carried a line of soundings across to the opposite shore. Its width here was 1,200 yards, and the depth was found to increase gradually for about a third of that distance, where it attained thirty-five fathoms.

This was maintained to within a short distance of the western bank, where forty fathoms were found. Its depth is doubtless much greater farther down the lake, where it is wider and less affected by the detritus of the streams. At either end a beach of coarse white sand, of quartz and felspar, was thrown up, the result of disintegration, as the sienite and small patches of sand, brought down by its two affluents, extend out to some distance. Below the lake, stretching like a dam across the valley, is a high plateau or terrace, cut through on the south side by the outlet.

At Chiloweynck Lake the pass of the Cascade range commences, following up one of its feeders to the summit, a distance on the parallel of about nine miles.

Upon the creek is a small lake, or enlargement of the stream, caused by a slide from the mountain, which has blocked up its course, the sides being steep slopes of rocky débris.

This pond presents an interesting phenomenon in the beautiful color of its water, arising from a deposit on the bottom. In the deeper parts it is a pure azure; where shallow, of a light milky or verdigris blue. The deposit is gelatinous, and covers the entire bottom, clinging to stones and sunken logs, strewed over it, to the depth of a tenth of an inch. When first taken up it was of a milky, opal hue, but becomes gray when dried. The water itself

is perfectly transparent and tasteless, and the deposit has merely a slight earthy taste. It is evidently brought down by the brook. The lake becomes dry in the late summer and fall.

The divide at the head of this pass forms, as it were, a bridge or level plateau, perhaps a quarter of a mile wide, connecting the mountains on either side. I had not time, in crossing, to ascertain its identity with the drift, though, like the terrace at the foot of the Chiloweynck Lake, its conformation suggests such an origin.

The height of this divide is 4,533 feet above the sea. A corresponding ravine, one of the sources of the Manselpannik, a stream emptying into the Skagit, heads under it on the east. The pass, therefore, though on the summit of the true Cascade range, is not a watershed between Frazer River and the Columbia, but only between two streams debouching through the Strait of Fuca.

A noticeable feature of nearly all these mountain streams is that, on their upper waters or directly under their principal sources, they run through narrow but *flat* valleys, having a comparatively gentle slope, once undoubtedly the bed of what may be called fluvial lakes or expansions of the rivers, and that their lower or middle course, according to the length of the stream, is more rapid and broken.

Thus Mr. Custer found, on the Upper Nooksahk, a level bottom of some fifteen miles in length and a mile wide, heading in marshy lakes, below which the river resumed the character of a mountain-torrent, until it reached the drift and alluvial lands of the sound.

The elevation of this valley is about 2,000 feet above the sea. On the Chiloweynck, the principal feeder of the lake, called by the Indians Klahaihu, in like manner carries a level valley to almost its very source. The same is true of the Upper Skagit, and, in fact, of nearly every stream of considerable length, and measurably so of the great branches of the Columbia itself.



MOUNTAIN ON KLAHAIHU CREEK.



The larger rivers frequently present a series of these basins. It is not only through districts easily eroded that the lower rapids occur, but frequently among rocky hills through which they have excavated cañons.

I have used the phrase *flat* valleys to designate those which present no visible concavity in their sections, but where deposits have created a level surface between the inclosing mountains. The occurrence of this form, as distinguished from the shape assumed in erosion, is exceedingly common.

CASCADÉ MOUNTAINS. (GENERAL FEATURES.)

The geological features of the Cascade range, north of the Columbia River, so far as exhibited on their eastern declivity, were described at length in a previous report.* From Mount Rainier, the rocks observed were chiefly trachytic or basaltic, with eruptions of lava of various ages, some of those of Mount St. Helen's being of very modern date. Interstratified with the basalt is a volcanic conglomerate, generally of a reddish color and very harsh texture, containing often masses of basalt and lava, but at other times assuming a tufaceous character.

North of Mount Rainier, crystalline and metamorphic were mingled with volcanic rocks in the boulders of the streams, until reaching the Winatsha, when the two former alone prevailed. I have since had an opportunity of crossing the mountains by the Nahchess Pass to the north of Mount Rainier. The rock, in places, from Mount La Tête to the summit, and thence some distance down the eastern side to Edgen's Rock, was volcanic conglomerate, and this, judging from appearances, constitutes the elevated points from Mount Rainier northward.

That portion of the chain exhibits a very marked difference in profile from the more southern, ragged and

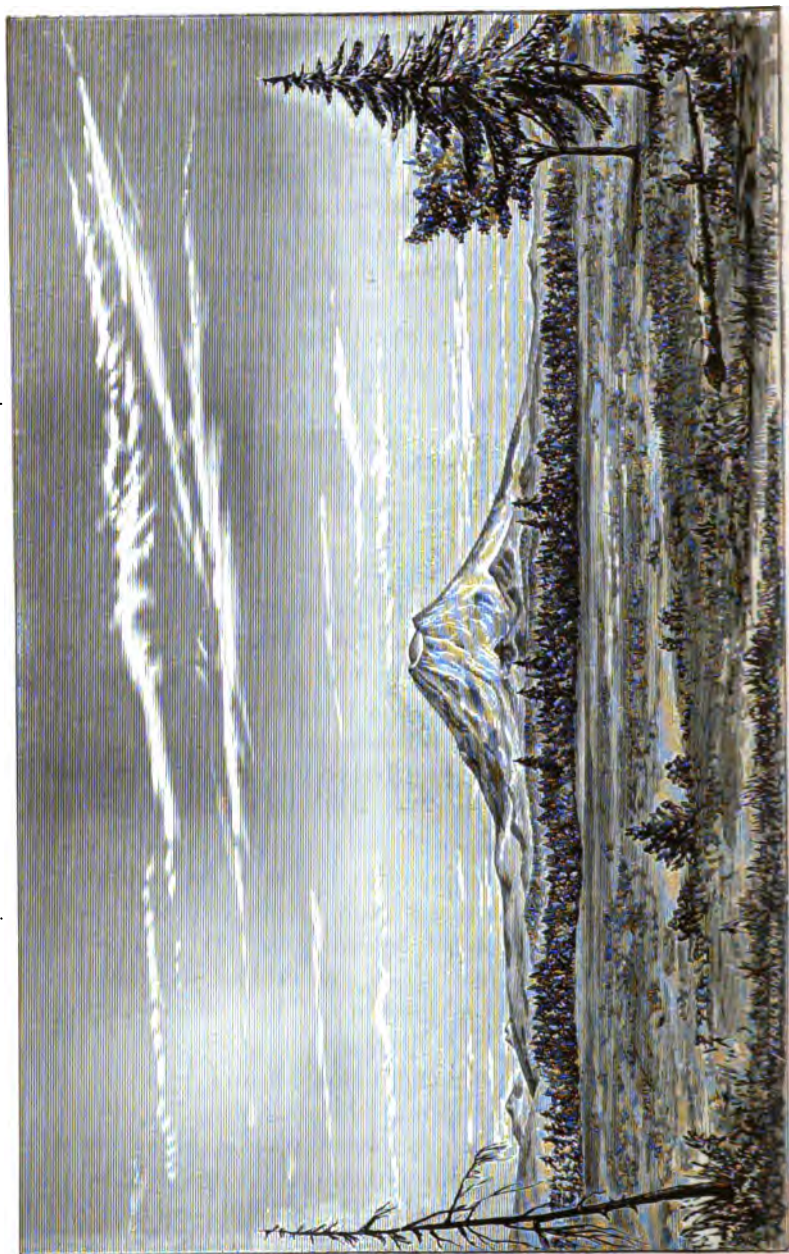
* Vol. 1, P. R. R. Reports.

broken peaks replacing the flowing lines and broad surfaces of the latter.

In ascending the Chuchchehum Pass, from the west, the rocks noticed were a fine-grained lamellar feldspar, quartzite, and diorite. On the mountain, to the north, sienite, quartzite, and slates, the former most prevalent; and in descending, to the eastern side, gneiss and slates, and a dark-colored quartz rock. On the mountain, south of the pass, I observed chiefly slates, with seams of quartz, greatly inclined and sometimes vertical. Still farther south, Mr. Custer, who took a route up the Klahaihu, crossing the range and descending to the Skagit valley by a branch which he named Glacier Creek, found sienite and a rock consisting of quartz and felspar without hornblende. The sienite appears to form the highest peaks of the range. In the Skagit valley, sienite, diorite, and quartz predominated. The summits of this portion of the range rise into sharp and serrated ridges, or peaks, of which a characteristic feature is, that on all the highest, nearly perpendicular walls, either of sienite or slates, inclose sloping basins, conveying the idea of craters, one side of which has broken down. These are generally the seat of snow-fields, or glaciers. Mr. Custer's observations, which were very extensive, led him to the conclusion that most, if not all, of them faced to the west or north, the greater number to the west.

LINE OF PERPETUAL SNOW.

As is everywhere the case in temperate zones, the altitude of the line of perpetual snow is too variable to be stated with certainty. On the northern sides of the mountains, in deep and sheltered gorges, and the crater-like basins, snow often lies all the year round, at points comparatively low down, while the summits themselves are bare. The sharp and precipitous crests of the higher peaks are unfavorable to the retention of snow, which slides in avalanches into the gorges beneath.



MT. RAINIER - FROM FT. STEILACOOM.

Of the true snow-peaks, the isolated volcanoes which rise far above the general range, Mount Baker, 10,800 feet high, and Mount St. Helen's, probably 12,000, are sometimes almost entirely denuded of snow, while even on Hood and Rainier it disappears to a great extent. On these, much of the melting is indeed probably due not to the heat of the sun, but to the warmth of the rocks beneath, under which the fires are not yet extinct.

The altitude of the more considerable snow-fields on the 49th parallel, which, on the north and west sides of ordinary summit-peaks lie all the year round to a considerable depth, may be stated generally at 7,000 feet. Some of the glaciers come down lower, though none, at present, extend into the valleys proper. They are all of De Saussure's class of summit-glaciers.

LINE OF VEGETATION.

This is not much more clearly marked, for it seems limited rather by the existence of soil than by elevation. Mr. Custer found Alpine plants and mountain grasses as high as 8,000 feet. The forest-line, however, is more distinguishable, and his observations and measurements lead to the conclusion that the line where timber, properly speaking, ceases, is remarkably uniform throughout the whole western Cascades.

The disappearance is very rapid, the trees retaining quite a large size to within a short distance of the point where they dwindle down into shrubs. It is noticeable that they extend farther up the western and northern than on the other sides of the mountains. The elevation of this forest-line may here be placed at 6,500 feet.

Lieut. Kautz, as mentioned below, found pines at a much greater height on Mount Rainier, viz., 7,268 feet; but this was probably due to local circumstances. East of the Skagit River, and thence through the interior basin, it attains, I think, a higher point than the average above given, notwithstanding the increased cold.

PRAIRIE-GLADES.

The distinguishing feature of the eastern slope of these mountains is the number of prairie-glades covered with grass, and, in the summer and early fall, blooming with a great variety of flowers. On one of the summits which I ascended, overlooking the valley of the Skagit, and elevated about 6,000 feet above the sea, these open tracks extended for a considerable distance, bounded only by the ragged crests and ridges of the interior range, in which were inclosed snow-basins and glaciers, the heads of numerous torrents tributary to that river. From an elevated point, a sea of mountains stretched in every direction as far as the eye could reach. To the south and south-west was the great mass of the Cascade range, Mount Baker being distinct among the rest.

Eastward, beyond the Skagit, the mountains presented a different aspect. They were of far more uniform height, with very few prominent peaks, and a general elevation of perhaps 5,500 to 6,000 feet.

They are also more bare of timber than in the western or main range. This equality of elevation, however, did not extend south of the parallel where Hozumeen and other naked serrated points reared themselves to a level with the summits of the Cascades proper.

GLACIERS.

Separated from this standpoint only by a deep gorge was a glacier, which formed, at the same time, the head of the Manselpannik and of another stream running to the Skagit. It seemed to be a half mile in extent, occupying the northern slope of a walled basin, and having an apparent inclination of 30°.

The termination was abrupt, and, as I judged, at about 5,500 feet above the sea-level, or 1,400 feet over the Manselpannik, to which a steep talus of débris led down. The field was mostly covered with snow, the blue ice showing chiefly at its edge. Numerous fissures ran

across it and divided it vertically. There was no arched opening for the water which ran down the rocks and gathered into a rapid stream below. Of the thickness of the ice I could form no opinion.

Mr. Custer saw on the Wailagonahoist Mountain, at the head of his Glacier Creek, a much larger one. The mountain itself he estimated at about 9,000 feet, on the side of which the glacier, somewhat interrupted, extended for about three miles. Its slope appeared to be as much as 70° and the vertical height covered by it 3,000 feet. It, in fact, reached entirely down to the valley. The stream here issued from a single vault and of considerable size, the water being of a whitish or milky blue. Numerous cascades from the adjoining mountains added to its volume.

In this neighborhood, also, the open glades occurred on the summits. They were rolling with gentle slopes, and inclose basins and shallow depressions, or extend down into the heads of gulches, from which arise small streams.

The glacial region has here undoubtedly been of almost Alpine extent, for these glades, in their surface, give evidence of the action of ice, at a period, geologically speaking, not very remote.

The snow, which falls to the depth of twenty or thirty feet, still lay in the middle of August in patches, especially in the basins.

Elsewhere it had so recently disappeared, that the grass was either dead or just recovering its verdure. I noticed in one of the depressions where a very distinct though small moraine had evidently been ploughed up.

On this mountain the first red snow was noticed, afterwards also seen on the mountains east of the Skagit. The coloring matter, probably *hematococcus invalis*, was so abundant that, in crushing a handful, the water exuding was reddened, as if with blood. On examination with a pocket-lens, the organisms which furnished it

appeared of a tadpole shape, or with a large rounded head and attenuated tail.

It is probable that at least the tributary valleys, such as those of the Chuchchehum and Manselpannik, have been the seat of more extended glaciers, though the dense forest might conceal the moraines which they would have left.

As, however, the level and terraced bottom of the Skagit, in the valley below here, where, from the more scant vegetation, the existence of moraines would be traceable, does not indicate their having reached it, and as no boulders are scattered over the surface, another proof is afforded that, since the glacial period, a subsidence of the land has admitted the entrance of the sea into the interior valleys, and, in modifying and arranging the drift, has covered also the *débris* of the glaciers.

VOLCANOES.

The only ascertained volcanic mountain in the Coast range of Oregon or Washington Territory is Swalalahos, or Saddle Mountain, about fifteen miles south of the Columbia River.

Its height, as compared with those of the Cascade range, is insignificant, and it has apparently been long extinct. It is composed almost entirely of conglomerate, and no lava streams appear to have issued from it, though it contains dikes of basalt. The crater is said, by Prof. Dana, who examined it, to be about two miles wide, and apparently 500 feet in depth, and is now covered with forest.

In the Cascades, the line of snow-covered summits which crown the range, and all of which are or have been the seat of volcanic action, has attracted the attention of every Western traveller. Of those south of the Columbia, Mount Hood only will be here referred to. Several of the others have been described by Dr. Newberry in his report on the geology of Lieut. Williamson's expedition.

In crossing the mountains by the emigrant-trail, some years ago, I made a sketch of the crater of Mount Hood, which accompanies this report. It faces the south, the wall on that side having been broken down, and is occupied by a snow-field. This mountain was first ascended by Capt. Gordon Granger, of the Regiment of Mounted Riflemen (now Major-General), in 1850, who reached the crater, but not the highest pinnacle. A second ascent was made in 1854. Of a number of persons composing the party, Mr. Thomas J. Dyer, of Portland, Mr. Wells Lake, and an Indian named "Cockup," alone reached the summit. The last was excessively proud of his exploit, as having overcome a superstition of his tribe.

Steam was visible in many places, escaping from small blow-holes in the crater, and ashes of a reddish color were collected, which, from their dry and pulverulent substance, were apparently recent. No glaciers were seen in the deep ravines which form the heads of the streams. Stumps of trees, weathered but undecayed, were abundant above the line of present vegetation, a fact very probably connected with the cooling of the mountain.

Mount Hood, though undoubtedly the highest of the range, is not visible from the ocean, owing to the intervention of the Coast range. From the plains to the east, and from Fort Vancouver below, it is a conspicuous landmark. Its general form is pyramidal, its sides exhibiting prominent ridges or foldings, but not so regular as those of Mount Rainier. The great discrepancy in the elevations assigned to these mountains by different writers is noticed by Humboldt.* Those familiar with all of them assign the supremacy to Mount Hood. Its probable elevation is 14,000 feet.

North of the Columbia River, and nearly equidistant from it, are two peaks, for a long time confounded with each other, Mount Adams and Mount St. Helen's. Of

* *Cosmos*, vol. v.

these, the former is nearly on the line of the general range, the latter some forty miles to the west. Both are situated on a broad plateau of mountains, the Cascade range having here its greatest width. The two peaks have nearly an equal height, and are probably not under 12,000 feet. Mount St. Helen's is visible for a considerable distance off the mouth of the Columbia, and at various points on the river as far as the Cascades; Mount Adams from the plains, and in most situations they bear a considerable resemblance to each other. St. Helen's is, however, much the more regular in outline, having a dome-shape, as exhibited in one of the accompanying sketches. Views of these two, and of Mount Hood, taken from the summit of the pass at Chequoss, give an excellent idea of their surroundings. No modern eruption of Mount Adams is recorded, but its former discharge of lava must have been copious, from the streams seen by Capt. McClellan's party, in crossing the range, near its foot. Mount St. Helen's is still active, though it has ceased to emit lava; its flow of this material was, however, apparently much later than that of its fellow, for one very extensive field, evidently proceeding from it, was seen, as clear and sharp in its fractures as if but just cooled. Smoke and steam are seen frequently to arise from near its summit, and considerable eruptions of ashes have occurred as late as 1842 and 1843. Fremont mentions that in November of the latter year "two of the great snowy cones, Mount Rainier and St. Helen's, were in action. On the 23d of the preceding November, St. Helen's had scattered its ashes like a light fall of snow over the dalles of the Columbia, fifty miles distant." Other travellers put the dates at 1841 and 1843. Fremont is, however, in error concerning Mount Rainier. It was Mount Baker that was then in action. Mount St. Helen's was ascended by Mr. Dyer in 1853.

The most prominent mountain, in going northward, is Mount Rainier. It is situated on the western side of the



DOMES OF MT. ST. HELENS—FROM CHALACHA PRAIRIE.

range, and is visible from the east only on the lower part of the Yakama valley. In other directions, it can be seen from the mouth of the Willamette, from the coast of Shoalwater Bay, and from Port Townshend. It is, however, from the plains near Steilacoom, on Puget Sound, that it exhibits its full grandeur.

It seems to spring from the very level of the table-land, and though sixty miles off, "as the crow flies," appears at times, in that pure atmosphere, as not distant an hour's ride.

The probable height of Mount Rainier is between 13,000 and 14,000 feet; that of the general range being from 5,000 to 6,000 feet, and the adjacent mountains rise towards it in an easy curve.

The outline is bell-shaped, modified on the summit into three rounded prominences, which perhaps inclosed the ancient crater.

The sides are deeply striated by ravines of immense depth, separated by rugged and precipitous spurs. Like all the others of that range which I have seen, it has upon one side a shoulder, probably marking a former lateral opening or crater; of this, the most noticeable instance is on the Shaste Butte of California, where it takes the form of a truncated cone, engrafted upon the side of the mountain. Mount Rainier seems to have been extinct for a long period; at least no recent lavas have been observed in its neighborhood, and there is no tradition of its having been seen to smoke.

It has never been ascended to the summit; but an attempt was made in 1857, by Lieut. (now Major-General) A. V. Kautz and Dr. R. O. Craig, United States Army, who reached an altitude of 12,000 feet, as calculated by the boiling-point of water. They estimated the line of perpetual snow at 8,000 feet. There were no dead trees above the present line of vegetation as described by Major Haller on Mount Hood, and they saw no evidence of modern eruption. On its side Lieut. Kautz dis-

covered a glacier, the source of the Nisqually River, of which he gives the following account :

"The glacier from which the Nisqually rises is formed by the filling-in of an immense mass of snow and ice in a ravine on the south side of Mount Rainier. From where the river emerges to the head of the ravine the distance is four or five miles, and the latter varies in width from half a mile to a mile. The upper end is covered with snow, having immense chasms running across it. The lower end is principally ice, with much *débris* of rocks, sand, and gravel. It is about fifteen miles to the summit of Mount Rainier, from the foot of the glacier. The ravine narrows near its foot, and there is no terminal moraine, but there are lateral moraines, and a straggling medial one.

"The latter is not at all marked, but the lateral ones are very perfect, forming a ridge on each side 200 feet above the ice, with a slope of 60° or 70° next to the glacier, and about 45° on the other side. It is composed of the *débris* of the mountain, almost entirely of basalt rock.

"There is a large vein of granite at the foot of the glacier, through which it had evidently worn a passage, as the bed of the stream, for a mile and a half or two miles below, was white with granite boulders.

"The Nisqually came out from beneath the ice in a stream twenty-five or thirty feet wide, a torrent so muddy and rapid that we would not have dared to ford it. The cavern was not much wider than the stream, and about fifteen feet high. The ice was, in places, clear and blue, but in others mixed with *débris*."

The foot of the glacier was steep, but higher up it had a more gentle slope of perhaps one foot in five. We ascended about half-way and crossed over to the moraine on the west side, finding, with much difficulty, a camp

among the pines. Here the water boiled at 199° Fahr.,* and the thermometer stood 34° . The glacier made a terrific crushing and grinding noise during the night. We had snow all around us, but afterwards found that we could have gone 100 feet higher and obtained wood. From this camp we started at eight in the morning, and, travelling steadily till six, we had to return without the triumph of standing fairly on either peak, though we were on the top of the mountain. The summit of Mount Rainier is a ridge forming two sides of a triangle, with a peak at each end and one in the angle. We made the south peak nearly, and I could have easily reached it but for want of time. There is no indication of any recent eruption, and we saw no crater. If there is any, it is filled up with snow.

Mount Baker, the next most prominent peak, and the northernmost in Washington Territory, is fully twenty-five miles to the west of the water-shed of the Cascade range, upon a spur or offset, and about in a line with some other peaks to the southward, as Pitt Mountain and Mount Shaste. Its height is given by the United States Coast Survey approximately at 10,800 feet. It appears from the westward as a conical peak, less simple in form than any of the others.

From Frazer River, above Fort Langley, and also from the Skagit, it is seen to be truncated, or rather roof-shaped. It would seem to have only recently resumed its activity; as I am informed, both on the authority of

* Altitude, Kautz's encampment, by Loomis's formula:

Barometric pressure, corresponding to 199°	22.971
Assumed sea level.....	30.042
Assumed altitude.....	7011.4
Correction for temperature.....	284.0
	<hr/>
	7245.4
Correction for decrease in gravity.....	28.0
	<hr/>
	<u>7268.4</u>

officers of the Hudson's Bay Company, and also of Indians, that the eruption of 1843 was the first known. It broke out simultaneously with St. Helen's, and covered the whole country with ashes.

The natives told Mr. Yale, chief trader at Fort Langley, that the Skagit River was obstructed in its course, and all the fish died. This was, in substance, what they assured me on my visit to the river, adding that the country was on fire for miles round.

The fish, undoubtedly, were destroyed by the quantity of cinders and ashes brought down by the Hukullum. Since the above date, smoke is frequently seen issuing from the mountain.

Between Mount Baker and Mount Rainier a number of lesser peaks, presenting from the Strait of Fuca the form of a broken sierra, rise to the limits of perpetual snow. They have never been explored, but they appear, from some points of view, like the skeletons of formerly more elevated volcanic mountains.

I have heard of no volcanic peaks as existing in the Cascade or Marine range of British Columbia, but this development in the Russian dominions is extraordinary.

Sir George Simpson states* that eighty-four different volcanoes have been in operation, in the country under the jurisdiction of the Russian American Company, within the recollection of many of the inhabitants.

EARTHQUAKES.

These have evidently been of frequent occurrence, as they do not excite much astonishment among the Indians. Dufлот de Mofras mentions one which was felt at Fort Vancouver, December 2d, 1841, at 4 P. M. They experienced these oscillations, of a second or more, and in a direction north and south. Mr. Yale, in a letter to me, says: "We had two that might have attracted the attention of the geologist. Both occurred after the eruption

* Overland Voyage.

of Mount Baker. The first was tremulous, and caused some dilapidation of tottering things; but its greatest peculiarity was perhaps the loud report that preceded or attended it, and the roaring noise, which continued for some time. The adjacent mountains being composed of tremendous masses of solid rock, we almost expected to behold them and ourselves sinking into an abyss. The other was undulatory, and did some injury to the foundation of our house. It seemed to have come from the westward, and to have left in its trail a cold, disagreeable, smoky vapor. Both occurred in winter. That of the 26th of December was felt here, but I believe slightly, having escaped my perception."

This last was one of December 26th, 1856, which was very perceptible at Port Townshend, where I then was, jarring the house like the fall of some heavy body. It was felt by Mr. Warbass at Whidbey's Island, and the Indians told him, in reply to his inquiry if they knew what it was, "that the earth was rising."

A very distinct shock was noticed at Olympia on the 2d of April, 1859, at 2:30 A. M. Mr. James Tilton, Surveyor-General of the Territory, describes its force as about equal to the effect of a sixty-mile-an-hour gale upon a frame house.

The crockery rattled, and many persons were awakened. There was but one shock, which lasted eight or ten seconds. The night was calm, and the tremor well defined, undulatory, and suggestive of the motion of a ship at sea.

A lady living in Olympia informed me that a pivot glass in her bedroom was made to swing so much as to attract her notice.

The direction was S. W.

EASTERN CASCADE RANGES.

The mountains lying between the Skagit and Okinakane, I have distinguished on the profile as the Skagit

and Similkameen ranges ; but, excepting that each forms a watershed, more or less continuous, they do not possess the character of true ranges, but rather a confused assemblage of ridges with no perceptible arrangement or direction.

North of the parallel, they have a pretty equal height, not exceeding 6,000, or at most 6,500, feet above the sea, and on the summit and southerly exposures they are thinly wooded and covered with grass. South of the line, however, they are much more elevated, rising in high and ragged peaks, of which Mount Hozomeen, standing almost exactly upon it and overlooking the Skagit, is an example.

Between that stream and the forks of the Pasayten, the rocks generally were of the same character as in the Cascade range.

The divide between the two rivers was of felspar, interstratified with slate and quartz. Descending the west fork of the Pasayten, they were granitic, sienite, as usual, prevailing over true granite.

Quartz, felspar, diorite, and various porphyries also occur. In a small branch of this fork, boulders of sandstone, containing some vegetable traces, were observed; and on the mountain opposite the Chuchuwanten the rocks were sandstones, of various degrees of fineness, and conglomerates.

It is not improbable that tertiary deposits of some extent have existed here, as Lieut. Parke found lignite, in a micaceous sandstone upon the Similkameen, a little above the mouth of the Pasayten; but, if so, they have been mostly denuded or greatly altered.

The valley of the west fork has quite a gradual descent, but nowhere exceeds a mile in width. It is divided into basins, irregularly lined with terraces, some of them level and rising in benches, others resembling rather slides from the mountains, subsequently modified by water, than original deposits. The soil is of fine sand, mixed

with gravel and boulders. The south fork is more rapid, and with a narrower bottom, and below the junction the river enters a cañon, which continues to near the mouth. Crossing from the Pasayten to the Similkameen, porphyritic and altered rocks formed the mountains dividing the former from the Naisnuloh, and prevailed for some distance down the last-named stream. Below these, sienite, quartz, and blue slate were observed, sienite constituting the prevalent boulders in the stream. The quartz, in many instances, breaks into polyhedrons, huge modified crystals, often weighing over a ton. In one of these, which had been fractured, I noticed three sides of an interior hexagonal prism. In places, steep escarpments of the mountains overhang the Naisnuloh, a talus of débris resting against their sides, the fragments of which were often of great size.

The terraces on the Naisnuloh were a strongly-marked feature, occasionally attaining a height of 300 feet above the stream. They occur sometimes on one side only; at others, on both, and of equal elevation. Longitudinally, they appeared perfectly horizontal, but with a slope from the mountains towards the water. In its lower course, the Naisnuloh, as is so generally the case with these rivers, becomes more rapid, and the valley narrows. The cañon continues till within two or three miles of its mouth, from whence to the Similkameen is a level-terraced plain.

Mr. Custer, who crossed from the Skagit on to the head of the Similkameen and thence descended the latter, found the divide to consist of sienite and slates, and these rocks prevailed along his route. From the Campe des Femmes to the mouth of the Haipwil the river is nowhere very rapid; but its valley, down nearly to the mouth of the Naisnuloh, is narrow, not exceeding from half to three-quarters of a mile. From the junction of the Pasayten fluvial terraces line the bottom.

Below the Naisnuloh the prevalent rocks were sienite,

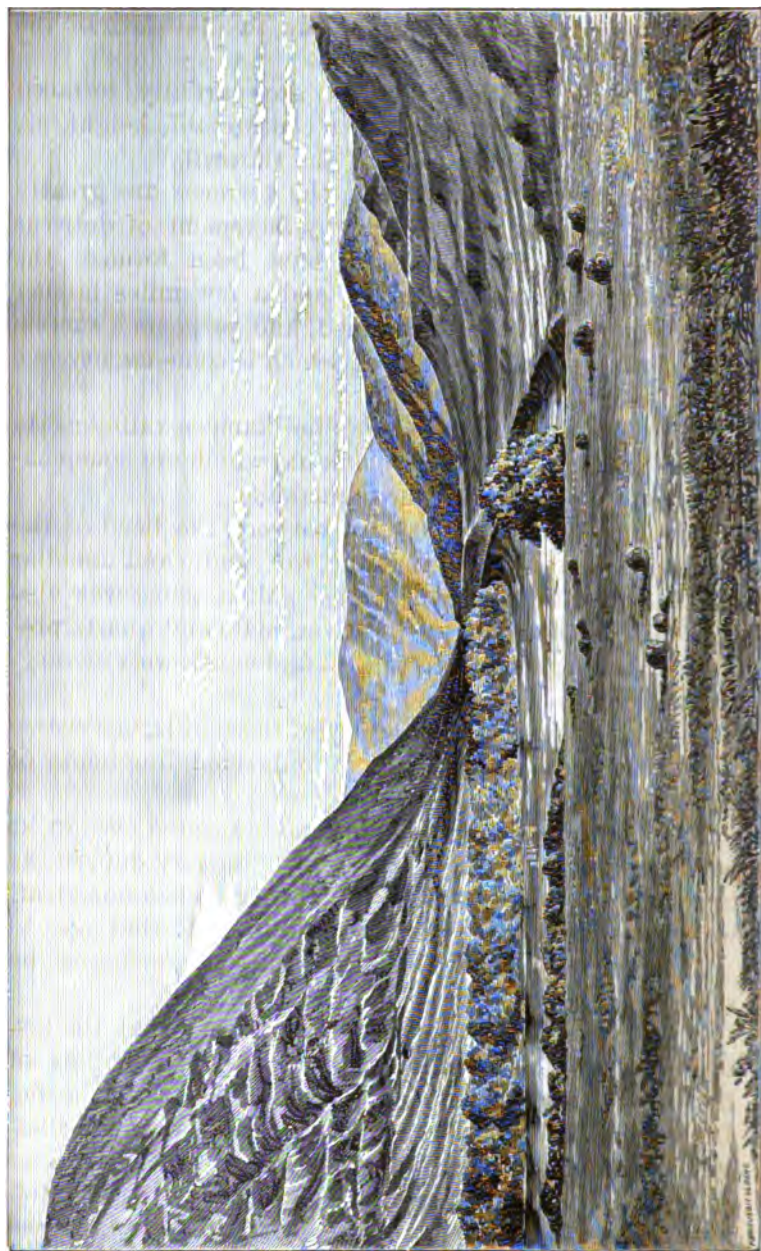
hornblende, and lamellar quartz, all greatly disturbed in their position. At the mouth of the Haipwil, alkaline deposits were first noticed in the residuum of a shallow lake which had recently dried up. There were no crystals, but the salt covered the ground in a thick effloresced crust, which at a short distance presented, as on the Sweet-water River, precisely the appearance of water, or rather of ice, surrounded by an edging of snow. The soil generally throughout the lower valley of the river seems more or less impregnated with it. This basin is nearly destitute of timber, and of but little value except for grazing. A few patches of wet and rich bottom occur, but for the rest it is all sandy; and the presence of the artemesia and the cactus would alone be sufficient proof of its worthlessness.

The mountains are sparsely timbered, and, where not denuded of soil, are covered with fine bunch grass, as are also the terraces and much of the bottom. Their slopes are generally steep, deeply furrowed by ravines, and broken by rocky escarpments, from which masses of débris extend down to the valley.

The district suitable for settlement, therefore, is of very limited extent, and that lies altogether north of the parallel. For summer grazing it is admirably fitted; but although the snow, according to Indian report, does not lie as deep here as it does on the Columbia, and their horses can contrive to subsist, it is evident that in this climate no considerable number of animals could be wintered without an artificial supply of food.

The terraces on this part of the river, and for some distance below, do not exceed thirty or forty feet in height, and extend in long level lines for miles at a stretch, the faces curving with the course of the stream.

They are not always found on opposite sides, but sometimes alternate. The normal surfaces seem to have been almost flat, but the wash from the mountains has left long sweeping slopes, sometimes extending to the edge,



SKETCH ON SIMILKAMEEN RIVER . MOUTH OF HAIRPOLL.

sometimes but part way, according to the width of the plateau.

Upon some of the hill-sides are partially terraced banks, frequently extending to a considerable height, as, for instance, at the junction of the Haipwil.

A little below that stream, the terraces are greatly modified, both by erosion and by increment of detritus from the hills. Deep arroyos have been formed, the level bottom ceases altogether, and a few miles farther down, the river becomes cañoned, and presents a succession of rapids and falls, one of which is some twenty-five feet in height.

Approaching the mouth, the Similkameen valley again widens out into terraces or plateaux, which are conspicuous where it unites with the Okinakane.

The general rock of the hills, between the bend of the Similkameen and the Okinakane, are sienite and lamellar quartz, interstratified with slate. Mica schist was also noticed. In the cañon of the river, slate and quartz prevail, having a general dip to west and south-west at varying angles.

Overlying the sienite, on many of these hills, is a coarse conglomerate, containing large imbedded fragments of granite.

There are also some sandstone and indurated clay rock, which appear to be the remains of a tertiary deposit, as in a fragment of sandstone I found a dicotyledonous leaf, which Dr. Newberry has recognized to be of that age.

Unfortunately I had no opportunity of extending the search at this place.

It was in the cañon of the Similkameen that the discovery of gold, by some of the party, created one of those epidemic excitements common on the Pacific. During the halt of the commission at Camp Similkameen, some of the men, in prospecting, struck diggings on a low bar in the river, only a few rods long. The following day a sergeant belonging to the escort obtained

six dollars and twenty-five cents from nine pans of dirt, and one of the employés about ten dollars in an hour.

Subsequently two men washed thirty-five dollars in about half a day, and others various amounts, many of them approaching the above. All this was got merely by panning. The bar soon presented an amusing scene; soldiers, employés and Indians being engaged together, and all sorts of implements, from a tin cup to a frying-pan, being brought into requisition. The gold was in coarse scales, sometimes in pellets and pieces weighing several dollars. After our departure one piece was found weighing twenty-two dollars and fifty cents. The gold had every appearance of being washed down from the neighboring gulches, and the probability of this seems to have been confirmed. It may be remarked that in 1853 Capt. McClellan's party found "the color" in small particles, in surface-sand, upon all the streams emptying into the Columbia from the Cascades, and at the mouth of the Similkameen in perceptibly sharp and unwashed points, indicating a neighboring origin.

During the winter and spring of 1859-60, a considerable number of miners flocked to this neighborhood, and extended the search to the Okinakane and the Nehoialpitkwa. Owing to the physical features of the country, perhaps, more than to a deficiency of the metal, the Similkameen district was soon abandoned. The want of water upon the hills prevented sluice-washing, which alone could be permanently productive. Scattered diggings which were found upon the Okinakane likewise failed, and the only ones occupied for any length of time were those of Rock Creek, a branch of the Nehoialpitkwa, presently to be noticed. Native copper is said to have been found by the Indians in the mountains near the forks, but I could procure no specimens of it. Stains of blue carbonate of copper, in seams of quartz, were found near Lake Osoyoos, and a fragment of quartz containing galena was picked up on the Similkameen.

The geological character of the country above described prevails, according to the observations made in the expedition of 1853, through the whole of that between the Cascades and the Columbia, as far south as the Winatsha or Pisuouse River. Granite rocks, gneiss, slates, and various porphyries continued, so far as I saw, to the exclusion of basalt and basaltic conglomerates, and also to that of unaltered sedimentary deposits, except as here mentioned. I have made no attempt at their arrangement in order of supposition, though I presume the granites to be the lowest part I have seen; almost every one passes, by invisible gradations, into others.

A striking change in scenery appears in descending the Similkameen. The valley of the river, as already mentioned, is almost destitute of timber, a few scattered pines alone appearing upon the terraces, with an occasional skirt of willows along the stream. The lower hills, particularly their southern faces, are also bare of forest. The whole of the eastern Cascades, in fact, present a dry and arid appearance, as contrasted with the moist fertility of the western range.

OKINAKANE VALLEY.

Sienite, gneiss, and granite are the prevalent rocks of the Okinakane below the mouth of its principal tributary. Above that point, the same rocks were capped with the coarse conglomerate noticed on the Lower Similkameen.

At the lower end of the great lake, claystone porphyry was noticed. Very little of this valley is fitted for cultivation, as the soil is sandy, with alkaline deposits. Timber is confined to the mountains, except a few cottonwoods and willows in the bottoms.

The Okinakane, as well as the Upper Columbia and Frazer rivers, is remarkable for its fluviatile lakes, formerly still more numerous through this northern country, but the most of which have been drained by the

gradual wearing down of the river-beds. These, indeed, were but the remains of those arms of an interior sea which extended up into the narrow and trough-like valleys between the mountain-ranges.

The largest of the Okinakane lakes is over sixty miles in length. Between it and the forks of the Similkameen are four smaller ones, and its valley, below that point, is divided into basins, where others once existed.

I have assigned all the mountains west of this river to the Cascade system, as will be seen hereafter. The trough or valley of the Okinakane is nearly 400 feet lower, on the forty-ninth parallel, than the Columbia River at the same latitude; and the difference in altitude between the great lake and the upper Arrow Lake of the Columbia, a degree to the northward, is probably as much. This stream, therefore, forms the true trough of the interior basin. Its course, which is from north to south, is continued by that of the Columbia, from the junction to the mouth of the Snake, near Walla Walla. As usual, the descent of the Okinakane is more rapid on its lower than its upper portion.

The terraces of this valley are among the most noticeable features of the region, and it is in this neighborhood that the coulées, or, as termed by Lyell, landstraits, are almost strikingly exhibited.

As they will be noticed in a separate chapter, I shall not particularly describe them here. The general height of the lateral or river terraces was from 250 to 300 feet.

NEHOIALPITKWA RIVER.

From the first summit of the divide between the Okinakane and the Nehoialpitkwa, elevated about 2,200 feet above the former, a view opens to the south-west and west, as far as the range bordering the Methow River, and the Tchopahk Mountain on the Similkameen. The scenery has a desolate character from the barrenness of the hills and the yellow hue of the herbage. Except

where escarpments of rock project, the slopes of the mountains near the river are gradual and the lines of terraces well marked. The actual summit is about 1,000 feet higher, being over 3,000 feet above the Okinakane, or 4,067 above the sea. It maintains the same character of grassy slopes and plateaux with skirts of timber, and, on the highest points, forest. Terraces and knolls continue to the top, the former having an amphitheatrical arrangement.

The divide between the two rivers, like that between the Skagit and Similkameen, is very narrow; the Schainks, the western branch of the Nehoialpitkwa, heading within a few miles of Lake Osoyoos.

The character of the Nehoialpitkwa, a secondary stream, is a miniature of the larger ones. The main river runs southerly to the neighborhood of the parallel at the junction of the Schainks; thence, turning easterly through a valley formed of a series of basins, it receives its two principal feeders also from the north, and, then bending suddenly nearly south, reaches the Columbia opposite Fort Colville.

The lowest of the two main tributaries is the outlet of a long fluviatile lake. None of any consequence come in from the south. As usual, it is cañoned at its lower extremity.

CENTRAL RANGE.

The mountains between the Okinakane and the Columbia, on both sides of the Nehoialpitkwa, rise to an average height of 6,000 and 6,500 feet, with occasional peaks 1,000 feet higher. Their summits are broad and flat, the ascents very gradual, though broken by escarpments of rock. On the right bank of the river they are often denuded of soil, but still show in horizontal lines of the larch, or tamarack, the remains of elevated terraces. These trees are, in the autumn, conspicuous among other coniferæ by the yellow hue which their leaves assume

before falling; and, perhaps from their requiring a greater depth of soil than the firs, seem particularly to affect the terraces and summits. The southern and eastern slopes are less timbered and more grassy than the others.

The terraces throughout the valley are well marked. The descent to the Schainks is by four of these benches, the heights of which, above the crossing of that creek, were, of the first, 767 feet, of the lowest, 363 feet; or, respectively, 3,452 and 2,685 feet above the sea. In the basins of the main stream they are lower and more extensive; but at the mouth again, where the fall is more rapid, they regain their height. Modified terraces are visible in various places at from 500 to 600 feet above the river. The *débris* and wash from the hills form slopes towards the river, sometimes at a pretty steep angle, extending to the edge, or crossing midway in the terrace, according to its width. Large masses of rock are scattered over them, but evidently all derived from the neighboring mountains. Almost every form of modification is to be found well marked along this river.

The rocks on the mountain-sides, to a great height, appeared often to have been smoothed by water or ice. If by the latter, it was possibly the ice of the arms or bays, and not of glaciers, though these may have been, as elsewhere, covered by detritus.

Many of the appearances of glacial action, attributed to fixed glaciers, may, it appears to me, be rather due to ordinary winter-ice, at a period of greater elevation of the water or depression of the land. I saw no transported boulders in this valley, though the terraces are often strewn with blocks rolled down from the adjacent hill-sides.

The geology of this range, which, following Prof. Dana, I have considered as a continuation of the Blue Mountains, is singularly confounded. Leaving Lake Osoyoos, we found, at the foot of the divide, sienite cropping out beneath quartz rock. The summit was of

a dark-colored granite, decomposing rapidly on exposure, and descending to the Schainks; besides the granite, boulders of blue altered slate and a porphyritic trachyte were abundant in the stream. In following the Nehoiapitkwa down, a great variety of rocks were observed,—granite, trap, porphyry, gneiss, and laminated quartz, talcose actinolite and mica schist, as also limestone. A short distance above the southerly bend of the river, on the right bank, the granite breaks through the gneiss, forming, as it were, dikes or long hogbacks running down the side of the mountain, and conspicuous by their lighter color.

Gneiss enters much more largely into the constituents of these mountains than it does into those of the Cascades. In particular, it forms the walls of the cañon near the mouth of the river, where it is nearly horizontal. The limestone, which becomes more abundant in approaching the Columbia, is thickly bedded, crystalline, and appears to overlie the others.

The search for gold upon this river, consequent upon its discovery upon the Similkameen, resulted in finding “diggings” upon Rock Creek, a stream coming in from the north, near the first crossing of the parallel, and to the foundation there of a village, or miners’ settlement. The excitement was of somewhat longer duration than at the first-mentioned locality, but has since subsided in favor of the mines more recently discovered in the Nez Percé country.

The Nehoiapitkwa valley contains some land suitable for cultivation in the basins and low plateaux, but its chief value is for grazing. The best part of it lies north of the parallel. The timber in the valley itself is mostly the red or Columbia pine (*P. ponderosa*), larch, and yellow fir; on the mountains, the larch, *pinus contorta*, yellow and balsam firs. The line of forest reaches a greater elevation here than on the western Cascades. Mr. Custer found pines and balsam firs in full vigor at 7,000 feet.

COLUMBIA RIVER.

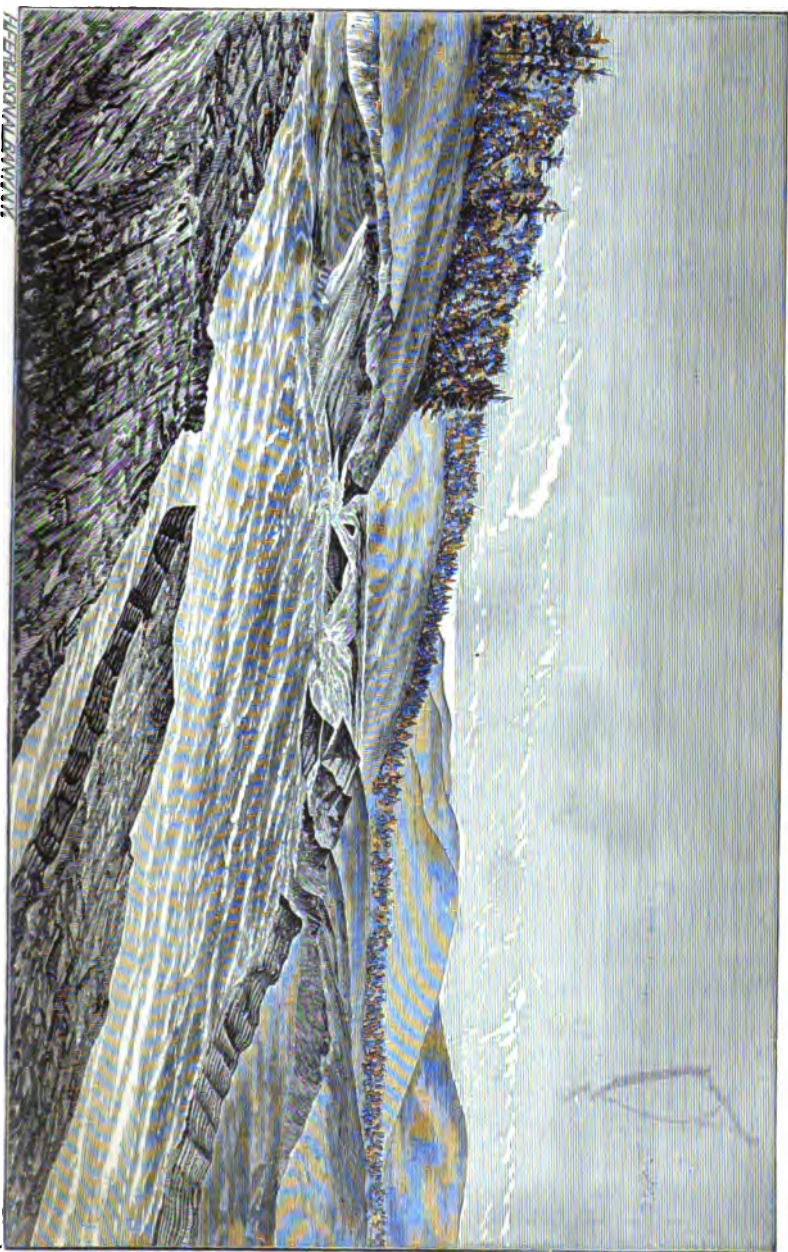
The falls of this river near Fort Colville (generally known as the Shwoyelpi, or Kettle Falls, from the "pot-holes" worn in the rocks) are about twenty-five feet in height. The obstruction is formed by a thick bed of laminated quartz, which here crosses the river, having an easterly dip of 20°. This spot is one of the great fishing-grounds of the neighboring Indians, who annually assemble, in the summer, in large numbers. The falls are not sufficiently perpendicular to stop the passage of the salmon, but check them enough to enable the Indians to secure incredible numbers.

Following the Columbia from Fort Colville to Fort Shepherd, a little above the forty-ninth parallel, slates and limestone prevailed, with intrusions of trap, and an occasional outcrop of granite. The slates were much broken up and altered, and no general dip could be recognized. The limestone was of various quality, the prevalent form being a fine-grained and compact black rock. It was also found breaking up into wedge-shaped fragments and splitting into large plates. This last was of various colors, pink, white, and dark gray. Near the mouth of Clarke's Fork the boulders were sienite.

Gold was found several years ago in Clarke's Fork, and in the Columbia, at its mouth, and this discovery led, I believe, to that of the Frazer-River mines. It was chiefly obtained from the bank, or lower terrace, and was very fine, requiring mercury to collect it. Farther up Clarke's Fork it was rather coarser. The prospects, however, were not flattering, and in 1859 the placer was already nearly abandoned.

Excepting the terraces, which are seldom of any width, the Columbia has no valley above Fort Colville. From there to the mouth of Clarke's Fork it is lined on both sides by hills of very uniform elevation, which sometimes, for miles, present an almost unbroken wall.

In the whole distance no tributary larger than a brook



HENSON/LLW/006

FALLS OF THE COLUMBIA - NEAR FT. COLVILLE.

enters from the east, and on the west but a single stream, a creek called the Yornetsin, or White Sheep.

In the wider parts of the river-bed extensive flats and stony bars occur; elsewhere it runs through a trough of sloping boulders.

At Fort Shepherd, about a mile above Clarke's Fork, the rise of the river, as indicated by this trough, is twenty-five to thirty feet, and the boulders range from a foot to three feet in diameter. The tremendous force of the sand-laden water, during the freshets, is shown by the rocks in litter, which are polished and worn into deep kettle-holes, as they are at the falls below Colville.

About twenty-five miles above Fort Colville are the "Little Dalles," a narrow cañon in the slate rock, where the river is compressed to a width of perhaps fifty yards. This word *dalles*, by the way, which occurs frequently on the maps of Oregon, is a Canadian term, signifying a trough, and is usually applied to cañons in the bed of a stream, not to the great fissures or excavations through which its course lies.

The width of the Columbia at the mouth of Clarke's Fork is about 300 yards. That branch enters at right angles through a gorge in a wall of hills some 1,200 feet high.

Its course for many miles above its mouth is that of a roaring torrent, and it falls directly into the main river by a cascade of twelve or fifteen feet in height.

The terraces of the Columbia are well marked and continuous for considerable distances. At one camp below the mouth of Clarke's Fork the base was elevated about eighty feet above the river. From the opposite and corresponding one, the second rose to the height apparently of 500 feet, and still above that a line of larches indicated the remains of a third.

The lower terraces are wooded with pine, larch, and fir, and the two latter line the hills. The fact that these terraces do not slope with the river, but descend by

steps, is well illustrated between Fort Colville and Fort Shepherd.

FROM COLVILLE TO SINGAWATEEN.

The valley of the Slawntens, or, as it is locally called, Mill Creek, which enters the Columbia just below Fort Colville, and of the Chemakane, a small stream heading with it, and emptying into the Spokane, form another of the coulées before mentioned, of which there are a number running through these hills. The first rises from the base plain of the Columbia, by a terrace, to a height of some 380 feet above the river, and the divide between the two is between 500 and 600 feet, the Chemakane valley dropping by another terrace to the level of the Spokane. Of course these streams excavate deep cuts at their exit.

The Mill Creek valley has been for many years occupied by employés of the Hudson's Bay Company, chiefly Canadians and half-breeds, and is, in fact, the only settlement in the central part of Washington Territory. Since the establishment of the depot by the escort of the Boundary Survey, however, quite a number of Americans have come in, and it would require the protection and encouragement of a military post, for a few years only, to give a character of permanence to the population. The soil of the valley is rich, consisting of a deep, sandy loam, with a subsoil of sand. That of the terraces is, as usual, gravelly, underlaid by blue clay at a depth of ten or fifteen feet, but the hill-sides are also capable of producing grain. The best crops, at present, are oats, barley, peas, and roots.

The wheat hitherto raised has been summer wheat, and the seed, as indeed that of everything else, has been suffered to run out. The new seed brought in by the troops, consisting of potatoes, beets, and other vegetables, produced abundant crops.

Winter wheat would probably succeed well, as the snow lies continuously, and would prevent freezing out.

Of the fruits, apples alone could thrive here. The nights in summer are said to be warm; but the season is very short, early and late frosts occurring.

The Chemakane valley, which was, at one time, the seat of a mission, also contains some very good land.

The limestone, which forms so prominent a constituent in the mountains west of the Columbia, appears to find its limit in the range of hills bordering it upon the east, none having been observed beyond the Slawntens and Chemakane. It here overlies quartz rock, which is, on the other side of the river, frequently laminated.

Around the depot, the quartz was chiefly visible in the western and north-western escarpments of the hills; and, at the mill at Peptahshin Creek, the dam is formed by a ledge of quartz dipping northward at a steep angle.

Boulders of sienite, some of them ten or twelve feet long, were noticed scattered over the hills east of the depot, a fact remarkable in connection with their scarcity through this country generally.

The explanation, I presume, is to be found in the fact that the valley of the Columbia, and the coulées which intersect these hills, admitted the passage of transporting ice, which the mountains elsewhere intercepted.

East of the Slawntens and Chemakane, and between them and Clarke's Fork, the rocks observed were a light-colored granite, sienite, gneiss, and quartz, the latter very generally either laminated or bedded. The granite itself was frequently divided by parallel planes, in such wise as to present the appearance of stratification, and in places separated into cuboidal blocks, so as to resemble a wall laid up in horizontal courses.

Upon the Spokane the basalt of the great plateau makes its appearance. This stream has been mentioned as the dividing line between the trap and the granite and other associated rocks, and substantially it is so; but the skirts of the former, nevertheless, cross it in places, overlying the granite.

The bluffs of basalt are often eroded into large rounded masses, and the rock, still farther disintegrating, falls apart in irregular pieces, forming mounds, from the summit of which points or chimneys of still coherent material project.

The terraces of the Spokane are conspicuous for their elevation rather than their number. They are formed almost altogether from the white quartz and felspar of the decayed granite.

Between the Little Spokane and the Cœur d'Alêne prairie, upon a plateau of trap elevated some 500 feet above the latter, an outcrop of argillaceous slate was observed overlying the basalt. The Cœur d'Alêne prairie, which is situated on the main Spokane, here called the Cœur d'Alêne River, is about twenty miles in length by three to five wide.

This valley, which is one of the most beautiful in the territory, is the favorite resort of the Indians of both tribes, who pasture their horses on the bunch-grass with which it abounds, and have their patches of grain and vegetables under the hills which border it. No great portion, however, is capable of cultivation.

The prairie is slightly terraced, and, in places covered with rolled gravel, precisely like that of sea-beaches. Its elevation is approximately 2,200 feet above the sea.

In the valley of the Little Spokane there is a considerable body of arable land, and wheat and potatoes both thrive well. The climate of the Spokane is much milder than that around Colville or on Clarke's Fork, and the season proportionately longer. The grass on the 3d of April was already becoming green, and early spring flowers were appearing, while at Colville depot the snow had hardly left the ground.

From the prairie, the Cœur d'Alêne Mountains, on the south, and Bitter Root, on the east, bound the river, both at this season topped with snow. The river, which, emerging from the lake, winds through the whole length

of the prairie, a little below it, makes a fall of 100 feet, the obstruction, according to Dr. Cooper, being gneiss lying horizontally, through which it has cut a narrow cañon, with vertical walls, a mile in length. Gneiss, granite, and pegmatite form the principal rocks on the north side of the prairie also, where they run into one another in the most confused manner.

The valley of the Cœur d'Alène is connected with that of Clarke's Fork by a wide coulée, the greater part of which is a plateau, elevated some 600 or 700 feet above the former. It bears indubitable evidence of deposit or arrangement by water, and unquestionably, at some former period, opened a communication between the two.

This plateau is thickly wooded, and snow lay to a depth of two or three feet, deepest as we approached Clarke's Fork. On reaching Pekoula Lake, the route to Clarke's Fork descends an abrupt terrace of 225 feet, and follows a lower bench some fifty feet above the water. Beyond this the descent of the outlet was gradual to the Singawateen crossing. The ranges on either side of this valley rise to a considerable height, the shape of the mountains being in general of the rounded outline common to granite formations, in many instances with dome-shaped summits and crowning knobs, all wooded except on the highest peaks. On the west side, or towards Colville, one summit called Chekolesum, probably 7,000 feet in height and destitute of timber on the top, is the Ararat of the neighboring Indians, to which they fled in the great rising of the waters. Mr. Angus McDonald, of the Hudson's Bay Company, informed me that a petrified tree, said to be cottonwood, lies upon its summit.

Clarke's Fork, from the Katispelm Lake to Singawateen, a distance of fifteen miles, has itself almost the character of a lake, especially in the freshet season, its channel being wide and deep, and its current comparatively sluggish. From there to the old mission of St. Ignatius, thirty-five miles, it is swifter, and below that

point it runs through a cañon broken by falls and rapids, and impassable for canoes. Even the salmon do not ascend it. The only alluvial land below the lake is an occasional strip of meadow, flooded during the summer. The terraces are composed of a very stiff and refractory whitish clay, utterly unfit for cultivation. The country is everywhere timbered and vegetation exceedingly late, frost and snow not entirely disappearing from the woods until the end of May.

The rise of the south branch, at the junction of the Bitter Root and Hellgate forks, commences about the 1st of April; that of the north branch, on Flathead River, I could not learn, but it is undoubtedly later somewhat.

At Singawateen the rise commenced about the middle of April, and the water reached its stand-point June 17th, the height being sixteen feet. On the 17th August it had fallen to within four and a half feet of its spring level.

The rocks between the crossing and the lake were almost entirely granite, composed of light-colored felspar in large crystals, white quartz, and a small proportion of mica. Some gneiss and diorite were also observed.

Katispelu, or, as it is also called, Pend'Oreille Lake, is not an expansion of the present river, but fills a considerable valley transverse to its course. It is forty miles long by seven in greatest width, very deep, and lined on both sides by mountains.

A depression, or coulée, similar to that between Singawateen and the prairie, extends from its head, south toward the Cœur d'Alêne Lake, and another north from its lower end to the Kootenay, at Chelemta. This last is drained in either direction by streams which interlock with one another. It is continued directly north by the course of the Kootenay River as far as Flatbow Lake.

Barometric measurements give the following as the

approximate relative heights of these rivers and their connecting valleys on north and south lines:

Elevation of Cœur d'Alene Lake	2,280	feet.
Elevation of Katispelm Lake	2,210	"
Height of former over latter.....	20	"
Elevation of Spokane River at the prairie	2,170	"
Elevation of Clarke's Fork at Singawateen.....	2,140	"
Height of former over latter.....	30	"
Elevation of Katispelm Lake, as above	2,210	"
Elevation of Kootenay River at Chelemta	1,770	"
Height of former over latter.....	440	"
Elevation of divide between Cœur d'Alene prairie and Singawateen.....	2,580	"
Elevation of Spokane River	410	"
Elevation of Singawateen	440	"
Elevation of terrace opposite Chelemta.....	2,360	"
Elevation of terrace above Katispelm Lake	150	"
Elevation of terrace above Kootenay River	590	"

It will thus be seen that the elevation of the rivers decreases as we proceed northward, and that a comparatively slight erosion would direct the water of Katispelm Lake into the Kootenay. On the other hand, the terraced deposits, so far as observed, are higher at the northern than at the southern end of the coulées, as, for instance, at the Kootenay than on the Katispelm Lake, and this not merely in comparative, but in actual height. On the supposition of recession southward of the sea, this would be naturally the case.

From the configuration of the country, it would seem probable that other similar depressions, running in conformity with the mountain-chains, connect the Kootenay with the waters of Clarke's Fork above the points here mentioned, and these would appear to be natural valleys,

formed during the original upheaval of the mountain-ranges, and filled up by detritus during the submergence of the country. The remarkable feature is, that the rivers should have cut out channels through these ranges, instead of following the troughs.

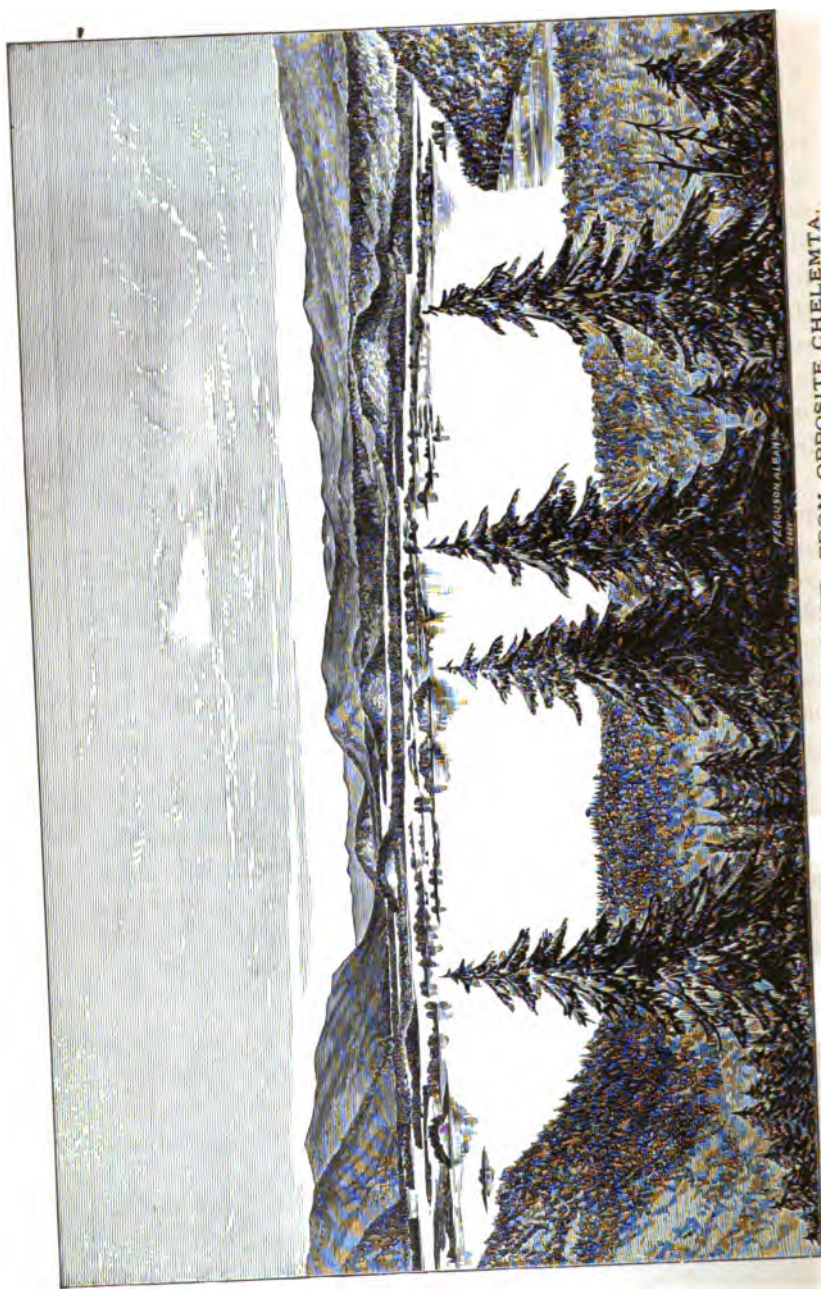
Mr. Darwin has noticed similar facts in some of the mountain-basins of South America.

Passing from the lake to Chelemta by this valley, we found the bottom-land heavily timbered, and the upper terraces, which are sandy, exhibiting the open grooves peculiar to the Red River. The mountains on either side are granitic; but in the bed of the creek, running through the Kootenay, were large boulders of sandstone, probably tertiary.

KOOTENAY RIVER.

The valley opens upon the Kootenay at a point where, having broken through a range of mountains in a course from east to west, it turns suddenly northward, as it were in continuation of the coulée. Looking down the river, from the high terrace in which the latter terminates, a superb view presents itself in the early summer; the entire valley, from mountain to mountain, being flooded, leaving only strips of more elevated timber-land, small islands, and the tops of trees above water. On the opposite or right bank, the course of the stream can be followed by the balsam poplars, and willows, which border it on either side, as it crosses nearly to the farther side of the valley, and there winds down in a serpentine course, presenting the curious spectacle of two parallel rows of trees rising in a broad expanse of water and inclosing a canal.

It is such immense reservoirs for the melted snow of the Rocky Mountains that supply the body of water which continues to pass through the Columbia and Frazer rivers until late in the season. The accompanying views, one taken from the point of our first approach during the freshet, and the other some twenty miles



KOOTENAY VALLEY IN THE FRESHET - FROM OPPOSITE CHELEMTA.

below, after its subsidence, will give a better idea, however, than mere description. The valley is from two to five miles wide. The terrace, which here borders it, is single, and rises to a height of 500 or 600 feet, but on the right bank is greatly modified and broken by the protrusion of the rock on which it rests. The mountains reach an elevation of about 4,000 feet above the river, or 6,000 above the sea, some higher points being above the forest-line. Patches of snow are visible upon them till the beginning of July. They are massive, with moulded summits and sweeping outlines, but their sides present many abrupt and deep ravines. Except the river-bottom or interval, which is meadow, the whole country is timbered.

The river had already commenced to fall, and, as estimated from the banks, the subsidence had been about nine feet. The difference at Chelemta between the highest and lowest stages, as indicated by a gauge, is little short of thirty feet. As might be supposed, there is no arable land in the valley, those portions where the soil might admit of cultivation being overflowed during the early summer. The terraces are sandy, but afford good grazing in the open timber.

Following down the right bank of the Kootenay to the parallel, the rocks were chiefly granitic, varying in the proportions of the material at different localities, mica being always sparingly distributed. Some gneiss was also noticed. Leaving the river and crossing to the Moosyie, a change in the geological character of the country is at once perceptible.

The range which is cut through by the Kootenay in its great bend, as will hereafter more particularly be noticed, is a northerly continuation of the Bitter Root chain, and as such the true axis of the Rocky Mountain system, though not its watershed.

It forms the divide between the crystalline and metamorphic rocks of the western side and the stratified rocks

of the eastern ranges, though here the latter are themselves much broken up, and, to a great degree, metamorphosed. Of their age and relative position I could form no positive opinion. I found no fossils whatever, but in lithological character they resemble those of the eastern mountains. Stratified quartz, blue and green slates, sandstone and limestone,—the last, apparently, uppermost,—now overlies granite and diorite.

All these are greatly upturned, and no consistent dip could be ascertained. This character prevailed to the head of Moosyie, in about lat. $49^{\circ} 30'$.

The valley of this stream is very narrow, and lined with rocky-timbered hills. It has the character, so often referred to, of being flat and sluggish at its source, with marshy ponds,—lower down rapid, and cañoned at its mouth.

The terraces are marked throughout, and, which is rare to the westward, strewed with boulders and irregular blocks. The Moosyie Lake is simply an expansion of the stream, pretty, but with no marked features, and divided by marshes. The hills on each side are some 1,200 or 1,500 feet above it, rising in rocky benches, sandstone being the prevalent constituent.

On the right bank are very regular walls of strata, varying in thickness from an inch to several feet, composed of sandstone, greenish slate and limestone. The divide between the head of the Moosyie and the Kootenay is not over 600 feet above the former.

In descending to the Kootenay the country again becomes open, gently undulating table-land, with gradual slopes, and grassy spots on the hills. At the foot is a prairie of some extent, level and surrounded with lacustrine terraces and low-timbered hills, from which the first view opened of the Rocky Mountains.

The range seen from here is that which separates the Kootenay from one of its branches, known as Elk River. It is steep and rugged, with crests of bare rock, and des-

titute of timber, and the lines of stratification are visible from the western bank of the river.

Snow was seen only in patches (August 21st), though the higher points were some 8,000 or 9,000 feet above the sea.

The soil at Joseph's Prairie, so called from its Indian owner, is good, but very wet in the spring. We saw here some patches of wheat, which looked well for Indian cultivation. The natives had a large band of horses and cattle, including cows, which they milked.

The route hence down the Kootenay at first ran some distance back from the river, in a sort of lateral valley, dotted with ponds and small lake-basins, but afterwards approaching the bank more nearly, as the country became broken. The same general character of rock prevailed throughout, greatly disturbed, and dipping in various directions. Eruptions of trap and porphyry have, in places, broken through them.

The valley of the Kootenay, in the neighborhood of the parallel, is of considerable width, but of very irregular surface, as indicated by the accompanying profile, constructed by Mr. Hudson.

On the western side, a series of parallel ridges rise gradually in succession to the base of the mountains. They appear to have once constituted a series of terraces, resting upon outcrops of rock, which have been eroded by currents in the direction of the stream. On the eastern side of the river, the country is more open and less disturbed, but with some of the same features.

Between the parallel and the mouth of the Akonoho are quite extensive level plateaux, terraced, constituting the Tobacco plains, so called, if the name can really be given to anything but a small patch. It is said to have been originally on a small tract of land near the Hudson's Bay trading post, on which some tobacco was once planted; as generally applied on the maps, it is simply absurd.

There is, throughout, very little land available for tillage, the terraced country being sandy or gravelly.

The Indians of the neighborhood raise some wheat, turnips, potatoes, and parsnips, generally selecting recesses of the foot-hills, or other favorable spots. Bunch-grass covers the open country, and the grazing is very good.

As at Joseph's Prairie, we found the natives in possession of numerous horses and some very good cattle.

The terraces bordering the Kootenay here are distinct, two, or sometimes three, in number, and reach a height of 600 feet. The highest are generally modified, and far from continuous.

Terraced slopes, in some instances, run up into the recesses of the mountains to a much greater height. Mr. Hudson counted, on one of these, fourteen different levels.

KOOTENAY RANGE.

The valley of the Akonoho is quite wide near its opening into the Kootenay, and, like that of the latter, terraced, the plateaux extending up it to an elevation of 4,000 feet above the sea. Ascending the stream, the pass narrows, and is shut in by mountains. The summit is about 5,200 feet. In the lower valley the rocks were chiefly sandstones, with some slate, in some places rendered metamorphic by the intrusion of trap. Upon the summit they were a red micaceous sandstone and red shale, interstratified with green slates. These latter are sometimes glazed on the surfaces of lamination, sometimes separated by their partings of mica, and occasionally are calcareous.

Ripple-marks and sun-cracks are abundant and exceedingly distinct. Another class of marks, frequently seen, is of parallel lines sharply cut, as if with a graver's tool, and sometimes crossed at right angles, but of inconsiderable depth. They probably indicate that joints had

commenced to form. Descending on the east side, the sandstones prevail for some distance down; and among the fragments rain-marks, and some very obscure forms, conjectured by Dr. Newberry to be fucoids, were abundant.

These rocks were succeeded by limestone, which forms in one place a precipitous wall of 700 feet in height above the creek. At the foot of this the first distinct organic remains were seen in a species of coral zaffrenites, and a little farther a number of casts were collected of spirifer, athyris and productus.

All these were found in loose fragments of limestone, and, although their neighboring origin was unquestionable, none were detected actually in place. An examination by Mr. Meek refers them, without doubt, to the carboniferous period, as will be seen by his report; but their exact place in the series is uncertain.

No traces of coal or coal-plants were discovered. Lower down the stream, and apparently below the limestone which contains these fossils, is an outcrop of sandstone, said by Dr. Newberry to be the exact counterpart of the Potsdam sandstone, as it occurs farther south in the Rocky Mountain ranges.

As regards the dip of these rocks, taken as a whole, no general rule could be ascertained. They are horizontal, or nearly so. At the summit they dipped N. E. 25°, and elsewhere they are inclined in various directions. The upheaval of the range is undoubtedly from the eastward, but there seem to be several foldings. The red sandstones and slates appear to overlie the limestone.

The valley of the Akinesahtl, or Upper Flathead River, near the parallel, though of some width, has no interval land, being occupied almost entirely by the terraces. The uppermost of these consist, instead of rolled gravel, almost entirely of angular fragments, the débris of the adjacent hills.

The first view of the eastern range of the Rocky

Mountains, as presenting itself on emerging from the pass into the valley of the Flathead, is that of a number of detached masses rising above a line of foot-hills. These are, in fact, the ends of spurs or ridges which break off from the watershed, or in some cases of almost isolated groups. The highest points of this range, which here are about 10,000 feet above the sea, are not upon the divide, but upon these outliers. Their general shape is ragged and precipitous, with sharp crests or points. Their altitude, their striking forms, and the various colors displayed in the rocks which compose them, unite in these mountains the highest elements of beauty and grandeur.

The pass through this range leads up a creek which heads, in the main divide or watershed, with one of the feeders of Belly River, the southern branch of the south fork of the Saskatchewan. Two remarkable mountains,—Kisheneton, on the north, and Kishenehu, on the south, the latter a double peak,—form its western portals. The general material of these mountains is, on the western side of the range, sandstones and shales of various colors, from yellow to deep-red, greenish slates and limestone.

Mr. Alden, who ascended one of the peaks, describes the alternations as follows: The base was covered with débris to the estimated height of 1,500 feet above the level of the creek, where the rock was red sandstone. Over this was a belt of the same rock, metamorphic, and in waved or contorted strata, 150 feet thick, succeeded by 500 feet of green slates and red sandstones interstratified; then again by red sandstones 500 feet, the summit, to a thickness of 1,500 feet, consisting of an ochre-yellow earthy shale.

The other peak of the same mountain, on the contrary, was of a light-drab sandstone at the base, and above composed of green and red strata to a thickness of 600 feet, and then of red sandstone to the summit.

The foldings, or plications, of the strata through this

range are evidently on a vast scale, and it would be idle to attempt unravelling them in a single and hurried passage. As a general thing, it appeared to me that the limestones occupied the lowest position, and the earthy red and yellow shales and sandstones the highest.

In ascending the pass, I found a thick bed of trap and greenstone porphyry, intercalated between strata of sandstone, upon one of the mountain-sides, and elsewhere noticed curved and contorted strata, evidently the result of other intrusions. Ripple-marks were everywhere abundant. I met with no fossils; but at Camp Akaminia, on the southern fork of Kishenehu Creek, Mr. Hudson discovered the singular impressions figured by Dr. Newberry, which cover large slabs of rock. Their character, however, is not sufficiently determined to afford any indication of the age of the foundation. Low terraces bordered the valley almost to the foot of the divide.

The summit, or watershed proper, is here continuous for at least several miles, and its dip is uniform to the S. S. W., or perpendicular to the trend of the range, in which direction it presents a gradual slope, while to the N. N. E. it plunges at once into the valley. The elevation is about 6,000 feet. A few stunted *pinus contorta* and balsam firs only grow on the summit, but their diminished size seems to be owing to scanty soil and exposure to wind, as they reach a height at least 500 feet greater on the adjacent mountains.

The divide is but narrow, and the view to the west extended down the valley of the Kishenehu to the Flat-head, and on the east through the gorge of another creek to that of a larger stream, of which it is a feeder.

It embraced, on either hand, a vast area of mountains of the most picturesque forms, and singular for their variety of coloring and the linear marks of stratification.

Several glaciers lie upon the summits of the higher peaks, the most conspicuous of which, on Mount Kintla, is apparently some two miles in extent.

No valley glaciers exist so far south as the forty-ninth parallel.

Descending the pass to the eastward, the mountains rise on either side with steep slopes of débris, crowned by precipices.

Greenstone was mixed with the boulders in the stream, and large masses lay scattered through the ravine. Its origin I could not trace.

The stratification of the other rocks was but little affected; but it was, in many places, metamorphic. Limestone prevailed to a much greater extent than west of the divide, apparently beneath the sandstones; and, towards the foot of the pass, quartzite seemed to underlie that also.

Emerging from the gorge of the creek, between two remarkable and precipitous cliffs, the pass enters a small valley, terraced, and with fine grass. Its course was at first southerly, and then eastward for about three miles, when it opened at once upon the plains of the Saskatchewan. On the north, the mountains here terminate abruptly, rising at once in steep, rocky declivities from the prairie. Southwards, an outlier is separated from the main range by a long, narrow and very picturesque lake, the waters of which also enter Bow River. The elevation of this is about 4,000 feet above the sea.

Terraces run along the eastern base of the mountains, from fifty to seventy-five feet above the creek. No timber is visible, except in the bottom, where there were stunted aspen and poplar, willows, and the service berry; and thus suddenly does the scene here change from the mountains and forest of the Pacific to the vast, treeless, and almost level expanse of the central region.

On so imperfect an examination of these great mountain-ranges, and without fossils, from numerous localities, it would be presumptuous to attempt any positive establishment of their geological age, or to unravel the complications of their structure. No crystalline or even true

hypozoic rocks were seen in place in the two eastern ranges, upon which to found a basis of reasoning.

The opinions arrived at, from such study as I was enabled to make, are chiefly conjectural. A much better judgment could be formed on a route from east to west than in the contrary direction, as means of comparing their lithological character, at least, with known formations, could thus probably be found.

I suppose the range crossing the Kootenay, at the falls, and continuing northward through its great bend, which I have termed the Moosyie range, to be azoic, and that the quartzites and highly quartzose sandstones of the Kootenay and watershed ranges are also of that formation.

The existence of carboniferous rocks in the Kootenay Range has been shown, and it is highly probable that both the Silurian and Devonian systems are embraced between that and the azoic, while the earthy shales which crown the water-shed are probably triassic.

FROM TOBACCO PLAINS TO CHELEMTA.

Descending the Kootenay River from the parallel, the valley narrows, and rocky escarpments occasionally show on either side. The route led down the left bank as far as the great bend of the river, sometimes over elevated terraces, sometimes over broken country covered with slides from the mountains.

The general dip here seemed to be to the N. E., often at a very low angle. Limestone formed the material of some of the bluffs, and in one place I noticed it smoothed and worn, as if by the action of water. Crossing to the right bank, no general dip could be detected. Ripple-marks and sand-cracks were observed in abundance as far down as the falls.

The falls of the Kootenay occur at its passage through the range of mountains which I have assumed as the continuation of the Bitter Root range. The bed-rock

here dips easterly, at an angle of apparently five or ten degrees, the water rippling over the edges of the fractured laminæ; and then the main body, sweeping diagonally across to the right, plunges into a chasm, producing a very pretty effect. The river, for some distance below, is cañoned.

The rocks are of the same character as above, but metamorphic and greatly contorted. Against the western side of the mountains lie terraces elevated some 300 feet above the river, and apparently stretching back for some distance. At the crossing of the Yakh, a very tough hornblendic rock appears, for the first time, among the boulders, probably underlying the others.

Approaching Chelemta, the bottom widens out into flood-lands, and the terraces reach a height of 700 or 800 feet above the river. The rock there, as before mentioned, is granite.

SPOKANE RIVER TO THE DALLES.

The great plateau inclosed between the Spokane, Columbia and Snake rivers, and extending eastward to the base of the Cœur d'Alêne and Bitter-Root mountains, is composed entirely of basalts and lavas, overlying granite, which is visible on its northern skirt in the bluffs bordering the Columbia.

Its surface is greatly broken and intersected by coulées and cañoned valleys. The most noted of these, the Grand Coulée, was not on the route of the party. It has been described by Lieut. Arnold, U. S. Army, in volume 1 of the Pacific Railroad Reports. No timber is found on these plains, except along the northern skirt of the Grand Coulée. The soil is generally thin and poor, without arable land, though there are tracts of good grazing; but the exposure to winds and the depth of snow compel the withdrawal even of the Indian horses to more sheltered situations during the winter.

The plateau seems to have been formerly covered with drift to a considerable depth, of which remains exist in some rolling country on its northern edge, and elsewhere in low table-topped hills, but the greater part is almost wholly denuded.

Basaltic walls, rising in steps, line the cañons, and here and there crater-like basins and rifts on the surface indicate the sources from which the lava was emitted.

As a general thing, the upper beds are more vesicular and less massive than the lower, and the columns and nodules smaller. The lower form large irregular blocks and large pillars, often shaly in structure. Throughout all this country the general position of the beds is apparently horizontal. The elevation of the plateau is, at the crossing of the Spokane River, about 2,500 feet above the sea, whence there is a gradual falling off southward to the Snake River.

The mountainous country lying west of the Spokane plains, or between the Columbia and the Cascade range, was described in my report to Capt. McClellan in 1853, and was not revisited by the expedition.

Below the Winatsha or Pisquous, the rocks are exclusively volcanic, basalts and lavas, over which, in places, lie thick beds of tufaceous deposits and infusorial earths. Some of them are described in the accompanying report of Mr. Edwards. All which have been examined prove to be, as indicated by Professor Bailey, of fresh-water origin.

South of the Columbia, the high basaltic plateaux continue intersected by the valleys of the streams emptying into it, of which those of the Des Chutes and Mahagh, or John Day's River, are the principal.

The former has been fully described by Dr. Newberry in his report to Lieut. Williamson, and will serve as a type of the whole. Between the Snake River and Fort Walla Walla, however, the basalt does not attain the usual elevation, but is only visible in the ravines.

The country is there a sea of rolling hills, which in their uniform height and contour, and the color imparted to them by the bunch-grass, resemble the sand dunes thrown up on coasts, though they are much more eroded.

The valley of the Walla Walla is here broad and level, the general soil sandy, like that of the hills, but along the streams there is a very productive black mould. All sorts of vegetables thrive well, and Indian corn ripens; but, from the limited extent of first-class land, it is better suited to gardening and grazing than to farming. The lower part of the valley is sterile and worthless.

The route down the Columbia from the Snake is a picture of desolate grandeur. High basaltic bluffs, or hills of drifting sand, destitute of trees, wall it on either side. The shores are lined with black reefs of basalt, their surfaces ground by the passage of ice, or the wear of the sandy waters in the freshet. The course of the river is broken by rapids, which are not, however, impracticable to light-draught steamers, but below the mouth of the Des Chutes a perpendicular fall of ten or twelve feet effectually bars passage, as does also the shoot at the Dalles. From these to the Cascades, the stream is deep and still. This last obstruction is obviously recent, and caused by a slide of rocks from the mountain, which has dammed back the water, overflowing its banks and submerging skirts of timber, the stumps of which are still visible beneath the surface.

Several members of the party, on the conclusion of the survey, ascended the Snake River in a small steamer from Walla Walla to the mouth of the Kooskooskie, and that stream to its first forks, about forty miles.

Gold had recently been discovered in the mountains forming the western series of the Bitter-Root range, and the influx of miners into what has since proved a very productive country had already commenced.

The metal has since, it is reported, been also found in

Burnt and Powder rivers, which drain into the Snake, from the eastern side of the Blue Mountains.

The country lying on either side of the Snake has been almost entirely unexplored, nor has any survey been made of the river itself between the mouth of the Kooskooskie and the Malheur, a distance of two degrees and a half of latitude. The formation is everywhere basaltic, and of the most desolate and forbidding character.

The Snake pursues its foaming course through a cañon which attains from 1,000 to 1,500 feet in depth, the walls resembling, though on a far grander scale, the Palisades of the Hudson; on either side, a steep talus of fragments being surmounted by a vertical precipice of black rock.

Standing on the brink, the eye sweeps a vast plain yielding no other vegetation than the artemesia and its associated shrubs, and sees the windings of this great excavation narrow, in the distance, to a line.

Here are some of the grandest features of natural scenery on the continent. The "American" and "Fishing" falls have been described by various travellers; but, as the usual trails avoid the river in places, others, and among them the Shoshone Falls, second to Niagara only in volume, and possessing features to which that can lay no claim, have escaped notice.

Crossing the country in 1849, I was one of the first party, Indians and trappers excepted, who ever visited them. They are situated eight miles above Rock Creek, or about 100 miles below Fort Hall. The river here bends round a vast isolated mass of basalt, and falls, by two or three cascades, into a wide and still basin, pausing, as it were, before it takes its final and unbroken plunge. So deep is the chasm in which it flows that the sound of its fall is barely heard upon the level of the plain.

We led our horses, by a steep and difficult path, to the margin of the basin, and thence succeeded in reaching the river at its foot. The height we calculated, by the cedars

which cling to the crevices of the rocks, at 180 feet; its width was estimated at 200 yards. The rock over which it poured was of argillaceous porphyry, upon which rested the basalt of the desert.

V.

NORTH-WESTERN NORTH AMERICA: ITS RESOURCES AND ITS INHABITANTS.

By J. T. ROTHROCK, S. B., M. D.

READ DECEMBER 17TH, 1872.

Of all the strange events of this century, nothing is half so wonderful as the growth and increase in material prosperity of the United States. It seems as though the latent unrest of all the races, which now blend in one composite race, had suddenly become awakened, and with a new energy undertaken to redeem, by a mighty effort, this entire continent from barbarism. In the true spirit of prophecy, a poet long since told us—

“Westward the course of empire takes its way.”

It was but history to assert

“The four first acts already past.”

To-day Berkeley's prophecy is as true as was his history in the year 1700. The years elapsing since (with almost divine forecast) the prediction was made have delivered themselves of their great burden, and the world now may well stand amazed in contemplation of such a progeny.

To leave the remoter past and come down almost to our own day, who has not read the story of Astoria? We may dwell over the recitals of sufferings, so vividly portrayed there, as over the pages of *Ivanhoe*, half convinced that though there might be much of truth, there was more of romance in the volume. Yet those of us who

know something from personal experience of frontier life can tell you that Irving did not overdraw the picture; that even within half a century the perils from Indians, from starvation, from the storms and streams, encountered by those whose hardihood led them to cross this continent, were all terribly real. But how changed to-day! The same great expanse of prairie still sinks in the dim distance below the horizon, and the same lofty peaks still mark the limits at which all westward rovers might well be content to stop; but the weary miles are transformed into pleasure-journeys, and the most secluded and inaccessible mountain-retreats are opened to every sight-seer whose curiosity leads him thither. While we are shaking the dust of the eastern coast from our clothing, we are carried to the golden gate of California, and can watch the sun disappearing in the Pacific Ocean.

This, then, ladies and gentlemen, must be my apology for asking your attention during the hour in which I shall try to tell you something of that portion of our continent to which public attention is being so largely drawn.

In 1592, San Juan de Fuca, following our western coast, entered the broad strait that now bears his name. At its eastern end a magnificent bay stretches off far to the south. Its shores are covered with timber of fabulous size and in immense quantity. On either side (east and west) rise mountain-ranges on which, in cooler spots, the snow lingers all the year. Rivers, draining fertile valleys, come down through the mountain-gorges to empty into this bay. Here and there islands dot its quiet surface, and between them are deep, safe ship-channels which would float the navies of the world. The whole bay is one splendid harbor. It is now before the public as *Puget Sound*.

Being well known, let that be our starting-point. Going north along the valley of the Frazer, after leaving the flat grounds which have been reclaimed from the ocean by the sediment deposited by the river at its mouth, we enter

the mountains ; spurs at first of the Cascade range, then the gorges in the main chain, through which the river has worn out a channel for itself. On either side high cliffs tower overhead, and shut off the sun, except when at high meridian. Add to this the deep monotonous green of the pine-trees, which predominates over every other color, and the scenery is gloomy enough to impress one sadly. Such an impression, however, can only be momentary, a passing shadow, that soon gives way to a sense of the absolute grandeur of the immense mountain-masses, which tower from 1,000 to 4,000 feet directly above.

The traveller may well wonder at the long-continued power exerted by the rapid current of the Frazer in this gnawing down of the channel to its present level. Imagination falls back in any attempt at grasping the mechanical equivalent which the force would represent, if for geological ages we substitute a day or a year, or any other period our minds can really and truly grasp. Hundreds of feet above the present river-level, we may see the same frettings and groovings that the water is wearing out in the solid rock under our eyes to-day. In the comparative calmness and quiet of its older age the current will drift, on the average, 100 miles a day from its head-waters to the ocean, and in the narrower gorges and rapids it fairly rushes along. We have, on this coast, no river that can at all compare with the Frazer, either in the grandeur of its scenery or the force of its current. With flat, fertile plains, equal in area to the State of New York, draining through numberless tributaries into the main stream, and with immense bodies of snow on the mountains at the heads of these tributaries, to melt away rapidly before an intense spring sun, you can understand why, in the gorges nearer the ocean, the difference between high-water and low-water marks is from forty to ninety feet, when this tremendous volume of water is thrown into the narrower channels. Yet, with all its present velocity of current, there was a time,

I have reason to think, when the Frazer, in common with the Nasse, Skena and Stukine rivers, was larger, and flowed at even a more rapid rate to their destination. Here and there along their valleys, terrace rises after terrace from the water's edge back to the mountain, and each terrace has its exact counterpart in height on the opposite bank. Every one of these elevations marks time when the rivers stood at a high level. To-day, over these grand accumulations of past ages, plants well known to the botanist bloom in a wonderful profusion. "Wild-pea vines" twine themselves through the dense grass until travel becomes tedious, as, hour after hour, one forces his way through the dense resisting mass. At intervals, over these terraces, are clumps of service-berry bushes, which furnish a fruit prized alike by Indians, birds, and bears; and here and there the cedars and twisted pines rise to the dignity of fully-grown trees. Even yet, the Frazer is wearing its rocky channel lower. Year by year new ledges of rock show themselves on the surface of Stuart's Lake, and prove convincingly that the outlet of the lake is being worn down by the unceasing flow of water over it, whilst on the lake-shores the willows are making their gradual inroads towards the vacant ground left by the receding water. These simple facts connect the present in a continuous line with the earliest terrace that skirts the mountain-foot, and show, amid all the changes impressed upon the landscape, the operation of one long-enduring law.

The river I have named rises among the Peak Mountains, which are hardly yet known by name even to inquisitive geographers. The mountains seem to fill up the valley left between the Rocky Mountains and a northern prolongation of the Cascade range. Imagine, if you will, an elevated plateau covered with here and there a clump of dwarfed, gnarled conifers, from the branches of which hangs the long lichen eaten by the Caribou; here and there a swamp, amid the cool waters of which thrive

plants belonging to a sub-arctic flora ; here and there a diminutive lake, that shines, in the clear air of a great elevation, like a diamond, and the rest of the surface sprinkled over with high mountain-peaks, as though Nature had assigned them their positions in one of her most lawless moods. Between the bases of these peaks wind, hither and thither, narrow valleys, which represent the moiety that is left of the original plain, after mountain and swamps have claimed their shares. These valleys are intersected in every direction by great gulches, worn out deeply by the melting snows during the warm days of spring and summer, and all of which terminate at last in one common water-course that receives the accumulated product of sun and snow, to carry it off oceanward. Imagine a country in which these physical features are markedly grouped, and your ideal will resemble the heart of the Peak-Mountain region, where mere physical force has for all time seemed to run riot, and to shape the country without any regard to the future wants of civilized man ; a region of warring elements, where sunshine and storm, clear skies and cloud overhead, perfect repose and the overwhelming onset of avalanches, are allowed to reconcile themselves as best they may. No one band of Indians regularly occupy the land, though many claim it ; and when the wild tribes meet there during the hunting-season, whether they fraternize or fight depends entirely on their whims. Universal ruggedness has left its stamp on the region and its inhabitants.

Within a day's walk, here rise the tributary streams of the Frazer, Nasse, Skena and Finlay's branch of Peace River,—the three first constituting a triad which make their way to the Pacific Ocean ; and the fourth, by reason of the mere accidental interposition of a water-shed, must wind a tortuous course, through one of the roughest mountain-regions on the globe, down to Athabasca Lake, east of the Rocky Mountains, and thence north, through Mackenzie River, to the far-off Arctic Ocean. For mile

after mile all of these rivers fall from precipice into chasm; now churning themselves into foam, now rushing along swiftly, but in comparative quiet, to an easier channel nearer the ocean-level. Much of the land on the banks of those emptying into the Pacific, and in their valleys, is fertile and well adapted to farming or grazing purposes, more especially so as they approach the ocean. Almost every sand or gravel bar will yield a trace (however small it may be) of gold. There can hardly be said to be a dividing ridge to the Peak Mountains; such as there is being lower by far than many of the scattered peaks on either side. The northern mountain-sides are, as a rule, precipitous, and, in many cases, show an absolute front hundreds of feet high. On the other hand, the southern declivities are as constantly more gradual. North of this mountain-system, the broad Nahanni plains stretch away far off, unbroken by any considerable ranges.

It is not a little remarkable, with all the other analogies existing between the western coasts of the Old and New worlds, that the similarity of mere coast-line should be so strongly marked, even in its minuter details. The fact is highly suggestive as an element in any speculations on the probable future of our western shores. It, indeed, almost amounts to more than a mere analogy, and is what a comparative anatomist would call a homology, *i. e.*, an essential identity of structure. To illustrate my meaning, allow me to remark that, under 60° of north latitude, we have at once the *fjörds* of Alaska and of Norway. At latitude 80° N. are the western prolongation of the sandy sahara of Africa, and the equally barren wastes of Lower California. There comes a dropping-off to the eastward, in the Gulf of Guinea, just as our coast trends eastward, from Mexico to Panama. The English islands lie between latitudes 50° and 58° N., as do those of Vancouver's and Queen Charlotte's, while, as if to complete the analogy, we have the Baltic Sea of Europe

well represented by the Frazer River, and the Baltic is prolonged southward in the Gulf of Lübeck, just as the Strait of Fuca is prolonged south into Puget Sound, and the Peninsula of Denmark finds its exact counterpart in the three most north-western counties of Washington Territory; the North Sea, in some points, being the homologue of the strait intervening between Vancouver's Island and the main-land. To say the least, these resemblances are striking.

The Gulf Stream in the Atlantic has also its equivalent in the Pacific. Crossing this ocean in a north-easterly direction from the Island of Formosa, in latitude 22 N., is found the Japan current, a portion of which sweeps northward through Behring Strait, and another portion, near the Kivule Islands, trends eastward under the name of the North Pacific Swift Current, which eventually gets turned southward along the coast of North America. It probably imparts to the air surrounding it and to the land it comes in contact with, as much heat as the Gulf Stream does to Western Europe. The influence of this current will be seen further on when we come to consider the vegetation of the coast.

About seventy per cent of the winds which pass over Vancouver's Island come from the south or south-west. Being, as they must, high in temperature, and carrying much moisture absorbed in warmer latitudes, when they reach the mountains south of Vancouver's Island, and ascend their southern slopes, this temperature is lowered, and much of the moisture that can be is wrung from them. A still more remarkable instance is found in the western ghats of India, where the abrupt character of the mountain-sides and their short distance from the ocean combine to produce the enormous rainfall of twelve to fifteen inches in a single day. Statistics show that the southern part of Vancouver's Island has fifty-one per cent of its days clear. New Westminster, in British Columbia, and but fifteen miles in from the coast, has thirty days' more rain

in the year than Victoria. It (New Westminster) is not so thoroughly protected by mountains on its south, and has more immediately north of it. On Vancouver's Island snow seldom falls more than twelve days in the year, and the thermometer is not often lower than the freezing-point. Flowers make their appearance in March. Canada has an annual range of temperature of 138° ; at Esquimault harbor (near Victoria) it is only $48^{\circ} 5'$, showing thus an immense preponderance of equable temperature in favor of the latter over the former. In London, rain falls once in two days; at Esquimault, but once in three. From these facts we conclude that, in general salubrity, the climate of Vancouver's Island ranks high. Further north the contrast between the climate of the Frazer-River valley and that of the coast under the same latitudes is a wonderfully marked one. As an illustration, I may state that in November, 1865, I saw the mercury in latitude 55° N. in the Frazer valley stand at 15° in the morning and at 90° in the heat of the day, making thus the unusual diurnal range of 75° . On starting in February of the same year for Rocher de Bouller, west of the mountains, I found the snow in the Frazer valley, on the average, six feet deep, and gradually increasing until in the places higher up among the mountains it was from eleven to twelve; the thermometer meanwhile standing at or below zero. The peaks, in their more elevated portions, were in great part bare, from the snow having been driven by the wind into the valleys or more sheltered rocks. Yet after crossing the mountains and reaching their western, or oceanic, side, in two days' time I had reached a place where the snow was hardly over six inches deep, and the air was as bland as that of March or April with us. These points were under nearly or quite the same latitude. As might be supposed, fearful storms of wind come sweeping through these mountain-gorges down to the lakes. Navigation is hence always more or less dangerous on that account. At Bulkeley House or Lake Tatleh (the extreme

northern lake of the Frazer River), the mercury often rises to over 90° in summer, and for days at a time I have known it range from 30° to 50° below zero in winter. Within a few days of this very time they were having a rain-storm at Fort St. Michael's on the shore of Norton Sound, several degrees further north.

The valley of the Frazer has some five lakes, which serve, however, more to diversify its landscape than they probably ever will to add to its commercial importance; the larger ones being in regions where cultivation of the soil offers but little prospect of profit.

What are the mineral resources of the North-west? Silver and gold are reported from Vancouver's Island; though not, I believe, in large quantity. In British Columbia valuable gold-diggings have been opened. The companies alone shipped 5,140,819 dollars between the years 1858 and 1861 to San Francisco. This is exclusive of that carried off in private hands. The largest nugget taken during that time weighed seventeen ounces, and came from the Caribou region. The quality of the gold is good. Peacock copper ore has been taken from the river in Queen Charlotte's Island. It yielded from twenty to sixty-eight per cent of copper. Along the main-land, and on Vancouver's Island, coal has been discovered in large quantity. That from Nanaimo, on Vancouver's Island, yields sixty-eight per cent of carbon against eighty-four per cent of the best Welsh coal. It is of fair quality, and answers well for marine purposes. The fact of its having about two per cent of sulphur is unfortunate. In view, however, of the remoteness of other sources of supply, the chances are that this coal will soon drive competition from the market there. There is no question as to the existence of coal, and that of good quality, in Alaska. In how large quantity it may be found remains unsettled. It is not unlikely that it will be discovered in accessible localities in paying quantities. Many facts lead to the supposition that most of the enterprise devoted to coal-

mining will first concentrate itself about the more southern mines, before going to those of Alaska. Petroleum, white marble, native copper, and sulphur are reported by Mr. Dall in his work on Alaska.

The vegetation of this region has long been one of its most remarkable features. Trees averaging from 150 to 200 feet in height, and with a diameter ranging from ten to thirteen feet, are quite common. To avoid any seeming overestimate of the timber of the region, I will content myself with some brief abstracts from my botanical report, published by the Smithsonian Institution in 1867, and from them a just conclusion may be formed as to the real commercial value of the timber.

Abies Douglasii, Lindl. (Douglas spruce), from 225 to 250 feet high; diameter often twelve to thirteen feet. Makes good spars, and has a fine, clear grain. The tall flag-staff, in the royal gardens at Kew, is made from a single trunk of this tree. It, of all the trees of the coast, stands, perhaps, first in size and commercial importance.

Abies Menziesii (Menzies' spruce) is somewhat smaller, though still a giant.

Abies Mertensiana (Mertens's spruce) is 125 to 200 feet high, with a fine straight trunk, which frequently grows seventy feet before giving off a single limb. It grows as far north as Norfolk Sound, in latitude 57° N.

Abies Canadensis (the hemlock of our forests) is also reported as far north as latitude 57°. There is, I believe, some doubt as to the specific identity of this tree.

Pinus contorta (twisted pine) is found, throughout the valley of the Frazer, on high grounds. It is from twenty-five to fifty feet high, and about a foot in diameter. It forms extensive forests. In the spring months the Indians strip off the outer bark, and then scrape away the newly-formed cambium layer, which is either eaten fresh, or dried into compact masses for winter use.

Thuja gigantea (giant cedar) grows as high as 170 feet, and has a diameter of ten feet. It extends, I think, about

to latitude 51° N. The timber is light, easily worked, and durable, except when exposed to the sun it is liable to split. I have seen the Indians split boards of it, twenty feet in length. They also use the single trunks of this tree, from which to "dig out" the celebrated northern canoes, which are the most perfect models of boat-beauty afloat. The wood, they also make into boxes, dishes; and canoe-paddles, some of which are of exquisite finish. From the inner bark, mats, hats, and baskets, and ropes of great durability, are made.

Acer macrophyllum (large-leaved maple) is found, in most of the interior valleys, as far north as latitude 55° . It is, to a certain extent, a substitute there for the hickory of our coast, and is a favorite fuel of the Indians inhabiting the valley of the Skena during their long winter nights. The Atnahs weave mats and baskets from the inner bark of this tree which will hold water.

Cottonwood trees appear to be ubiquitous over the entire north-west, and are largely used by the Indians of the interior in making their canoes, and for fuel. I have never anywhere seen such beautiful forests as those of the Lower Skena, where conifers, maples, and cottonwood trees were mingled into the densest of groves. On the less elevated prairie-lands, as far north as the Stukine River, various species of grasses, of great value as forage plants, grow in wonderful profusion, and are mixed, in about equal proportions, with the wild-pea vine.

Even at Fort St. James (latitude $54^{\circ} 41'$), horses thrive well during the entire winter on the forage they find under the snow, and need absolutely no care. The swamps are thickly set with sedges, which are, however, of no great value to stock, except in extremity. The high grounds afford, in abundance, the highly-prized "bunch-grass," so famed for its nutritive qualities. Mules and horses will thrive on it alone (even when it is dead and dried), and undergo, at the same time, great hardships.

From the mouth of the Frazer to its extreme headwaters, and along its tributary streams, are immense stretches of as fertile land as can be found on this continent, and before the end of this century they will support an active civilization. The same may be said of portions, at least, of the Skena and Nasse valleys. Fine crops of wheat, rye, oats, barley, potatoes, turnips, are grown at Fort Alexander, in latitude 53° N.; on the southern prolongation of Alaska the timber is of immense value. The islands of the Sitkan archipelago are densely covered with cone-bearing trees, and have a wonderfully diversified flora (for the latitude), the extreme humidity, combined with high temperature and deep shade, leading to an unusually disproportionate development in the specific forms of the ferns. The snow has hardly melted before the ground is covered with a mass of growing plants, which, under the long-continued sunshine of a sub-arctic day, push into flowers and fruit with amazing rapidity. Even on the banks of the Yukon River, trees are reported with a diameter of eighteen inches or two feet, and during the winter of 1865 and 1866 Mr. Bannister saw fifteen hundred feet of boards sawed at Fort St. Michael's, almost as far north as Behring Strait. On the western side of the continent the forests reach almost seven degrees nearer the north pole than on the eastern. I have enumerated within the limits of Alaska 732 species of plants, of which 560 are flowering and 172 are flowerless. The area of Alaska, as computed by the United States Coast Survey, is 570,000 square miles, including the islands. Chester county of the State of Pennsylvania, with but 738 square miles, has just about double that number of indigenous flowering plants. This, however, only implies for Alaska a poverty of specific forms, and not a sparse vegetation, for we find the country has, during its short summer, a luxuriant growth of vegetation, only not of so diversified a character as that of more favored regions.

In certain portions of North-western America animal life is abundant. During the spring and fall months the rivers and lakes absolutely swarm with water-fowl. Grouse are abundant over almost the entire country. Beavers, martens, minks, otters, and bears go to swell the list. The caribou is quite abundant among the Peak Mountains, and on it most of the Indian tribes depend for much of their winter supply of food. During the summer months the rivers are literally alive with salmon. No words can convey any adequate idea of the numbers in which these magnificent fish ascend the streams. The Indians, after having speared or taken them by wholesale in wicker-work baskets, dry them for winter use. The taste is then not unlike that of the hardest and driest birch-bark. A glance at the list of fishes enumerated in Mr. Dall's book on Alaska shows for that region no mean array of piscatorial life. Among the marine fishes are the cod, small-cod, true-cod, halibut, flounder, ulikon, and herring. In fresh-waters are found salmon-trout, salmon, white-fish, pike, sucker, blackfish, and a multitude of others. Of these species there seems to be no scarcity of individuals.

Indians—what shall I say of them? It has often been remarked that those who have spent most time among the Indians have given the most discouraging accounts of them. The inference has hence been drawn that the observers were all prejudiced against the red races. This view, I admit, is certainly the one best adapted to the so-called humanitarian notions; but whether it is so logical as to suppose that these uniform disparaging statements might be due to some mental defect, a moral obliquity on the part of the Indians themselves, I leave others to decide. It might, however, be well to remember that ignorance in the woods is not more apt to engraft virtues on itself than it is in civilization, and that æsthetics are extremely unlikely to be engendered by savage surroundings. Some of the most accomplished rogues I have ever

met were some unsophisticated members of tribes that had never seen half a score of white men. To their inherited original sin I think the best of them have some actual transgressions of their own to add. A gentleman, not less known as a philosopher than as a botanist, remarks that "ignorance is not *per se* a crime. Its heinousness depends on the use that is made of it." I am inclined to accept this concise statement of intellectual and moral relations; but still, even with this light, the Indian is not made any more immaculate, for I could readily show what shockingly bad use they are accustomed to make of their ignorance.

I have no desire to disparage or to underrate our American races; but, as much of our sympathy for them is the outgrowth of some overdrawn estimates of their character, it is only just that they should be fairly judged before we are influenced in conduct by these estimates. That there have been some Indians of real intellectual power, I will not be unjust enough to deny. I think, however, a fair analysis of the list of worthies will shorten it greatly. Some have been pre-eminent simply by contrast with the herd of educated savages around them; others from overwhelming uncurbed passion and mere physical courage, qualities a pugilist may possess. We have too often regarded their orators eloquent, when their expressions were the natural and uncontrolled utterance of some fierce emotion. They felt, with all their rough natures, all they said, whether that was good or bad; but there is an eloquence depending on high culture which is chaste, pathetic, and convincing, to which a happy selection of similes, derived from an abounding knowledge, is subservient. Of this the Indian knows nothing. His eloquence is not peculiar to himself, but is simply the product of a certain stage of barbarism. It has, truly, the merit of being natural, and borrowed from the forms and forces of nature about him; but it is not so from choice. His ignorance has imposed this upon him. When he tells you his

fathers were as numerous as the flowers on the prairies, he does so, not because he appreciates the æsthetic element involved in the comparison, but because each flower to him counts one. He cannot appreciate the abstraction we call thousands, which is equally eloquent and vastly more definite. Or he may tell you of the roar of the cataract, or of the lightning playing from peak to peak; but does he deliberately choose these similes? Rather is it not because, from the poverty of his language, he is compelled to call in the lawless forces of nature to aid him in the expression of his ideas? He never attains to any conception of his own mental operations. His views are all retrospective, never introspective. Even his spiritual ideas are so that it is equivalent to destroying a pleasant illusion to say just what they are. All assertions to the contrary, notwithstanding, I am convinced there are *some tribes* who entertain no ideas at all of a postmortal state or of any overruling divinity.

Practically we are all believers in manifest destiny, and it is with a poor affectation of modesty that we doubt whether this entire continent will ever belong, or ought to belong, to Anglo-Saxon races.

The recital of our dealings with the Indians does, I confess, make a black page in history against us, if we admit that territory of necessity belongs to those who first occupy it; but when we think of the millions from overcrowded Europe and Asia who are now seeking a home upon our shores, where they and their children may develop to the fullest extent all their mental and physical powers, the products of which are to add to the wealth, health, and happiness of all mankind, does it not seem as though the greatest good to the greatest number, which is the perfection of political science, demands that to mere *possession of a domain* we shall add, to constitute a perfect title, *improvement of that domain*? In this latter clause our red races have signally failed.

I am told they are here first in the providence of God; to which I reply by asking are they, then, here more under Providence than we, or are the instincts of barbarism, which demand so large a territory for their gratification, more heaven-implemented than the instincts of civilization which demand the same territory on which to reap greater public benefactions? I use numbers guardedly when I ask whether *three hundred Indians, who are ignorant and destructive in all their propensities*, have any right, divine or legal, to shut off from the occupation of a fertile country *three millions of intelligent, producing white men*, who would develop its resources, and send the proceeds into commercial circulation? Shall we lay an embargo on that civilization, before the heavy tread of whose great ideas and magnificent plans our rivers and prairies become tributary to the well-being of all mankind? Shall we cease belting the continent with railways, or stop extracting the ribs of silver from the mountainsides of Nevada, lest we limit the range of the buffalo, or trench on the traditional rights of a race that is content to live for itself alone?

There do sometimes arise emergencies when all those minor aggregations of individuals which we designate as races are lost in the one greater, all-comprehending bond of a common humanity; where the more powerful interest not only may, but must, say to the weaker: "You must conform to our modes of life, to our habits of thought; you must cease to stand in the way of the universal progress with which we are identified; nay, more, you must aid us. We leave you no alternative. We no longer regard you as aliens of another tribe, with whom we will have no friendly intercourse, but we force you into our brotherhood; acknowledging your manhood, we demand your active coöperation in our beneficent designs. If you refuse to join this broadest of all alliances, you must pay a penalty, the greater because of the high privileges you fail to accept. Great as is the responsibility incurred in

exterminating you, and your opposition to our mission, we assume even that, if it must be, rather than fail to do our share in the age's work." This emergency, I think, now faces us, and I also think the spirit of our rulers is to offer first, fairly, the olive-branch in good faith; and if this last, best measure fail, then to relentlessly sweep out every opposing element of barbarism. The world can no longer afford to the Indian an independent existence, with the privilege of roaming over tens of thousands of square miles, at the cost which that entails to our better civilization. Mankind at large is no more bound to tolerate a race of vagrants than one nation is to tolerate an individual vagrant. The principle involved in both cases is the same. Within memory of most of those now living, our government compelled the Japanese to throw open their ports, and to break the seclusion they had maintained for centuries, and Christendom approved the act. Do I strain the point when I say the law involved in both cases is the same? However inhuman it may seem, I scout the idea that this broad domain belongs any more to barbarism than to civilization.

There is, however, one more aspect in which we may view our Indian relations. Whilst we are responsible in part for their disappearance, and criminal in our neglect of what does legitimately belong to them, we may also well remember that, over and above all this, a Higher Power has willed their melting away. It is purely a work of supererogation to place any sin at our doors which does not belong there. Broad as are our national shoulders, they already groan beneath the load of iniquity they cannot shift elsewhere. In one word, I think mere human form and a minimum of brain power have accomplished their work on this continent, whatever that work was; and that the Creator is now allowing the red races to disappear, just as He allowed the mammoth and mastodon to go before them. Their vanishing looks like a continuation of the eternal scheme in which lower beings

have always made way for the higher. The very breath of an approaching though still distant civilization seems to destroy them as certainly as the Assyrian host melted before the destroying angel of the Lord.

Father Baegert, a Roman Catholic missionary, who lived seventeen years on the peninsula of Lower California during the latter half of the last century, writes: "It is certain that many of their women are barren, and that a great number of them bear not more than one child. Only a few, out of one or two hundred, bring forth eight or ten times, and if such is really the case, it happens very seldom that one or two of the children arrive at a mature age. I baptized, in succession, seven children of a young woman, yet I had to bury them all before one of them had reached its third year. The unmarried people of both sexes and the children generally make a smaller group than the married and widowed."

Ross and Mackenzie reiterate the same ideas. Now, these statements are distinct and unequivocal, and what gives them a peculiar value is, they come from men who have spent years among tribes remote from any possible injurious contact with whites. They were the representatives of interests striving to protect, from motives of religion or policy, the aborigines from any of the destructive influences which have so often followed civilization.

History, more or less reliable, tells us what fearful plagues decimated the Indians at the very spot at which our pilgrim ancestors afterward landed; a fact, by the way, which the humility of the Puritan band did not prevent them from interpreting into a special interposition of Providence in their behalf. I have travelled down the valley of the Skena and seen whole villages falling into ruin, fisheries deserted, and extensive camping-grounds overgrown with weeds and underbrush, and no corresponding later ones. The most numerous memorials of large tribes were the rude boards they had placed to mark the burial-places of their friends. In times of sadness,

those who still linger on their traditional hunting grounds will tell you of their waning forces. In the summer of 1866 I saw more than half of one large village die from a disease simulating Asiatic cholera. I know of another tribe which within ten years has been reduced from eight hundred men to less than half that number. Infanticide is common among certain tribes, especially of the female children. All of these facts come to us from tribes to whom civilization has never come. Does it not seem as if their mission were accomplished, and that they were doomed to go, irrespective of us? It still does remain for us to cast about them every protection which is not inconsistent with the general good of humanity.

RESOURCES OF THE NORTH-WEST.

I am probably not far from the truth in asserting that, in British Columbia, there are 50,000 square miles of territory capable of supporting a large agricultural community. Over a large portion of this region wheat, rye, oats, barley, with potatoes, turnips, onions, and cabbages, may be grown with reasonable certainty that they will mature. Fruits will undoubtedly do well. Some of the largest and best-flavored turnips and potatoes I have ever eaten were raised on land that, for sixty years, had been used by the Hudson's Bay Fur Company's men, with hardly an idea as to the value of rotation of crops or the use of fertilizers. We can all remember when it was said that the State of California could never be self-supporting. Yet to-day it is, of all others, the one garden-spot of our nation. Its incomparable climate does much for it; but much of the soil in British Columbia is just as fertile, and in some small portions of its surface, where the drought has hitherto been dreaded, the Chinese have shown how much may be done by civilization. The luxuriant crops of grass show what the soil is capable of. I need not again allude to its timber. In the rougher portions of the country grazing may be profitably fol-

lowed. As a future manufacturing centre, I anticipate much from certain portions of this region. The presence of coal of good quality and in sufficient quantity, and the great water-power of the region, can hardly fail to be made subservient to large manufacturing interests.

The future must, of necessity, make much of its marine and fresh-water fisheries. Probably no fish-market in the world is better stocked than that of Victoria, on Vancouver's Island. The salmon of the Columbia have a reputation which has already reached this coast; and I should probably be stating the truth were I to assert that those from the Frazer, Nasse, Skena, and Skeekine rivers are as much superior to those from the Columbia as those of the latter are to our eastern salmon. At a certain season of the year a small fish, known as the olihan, is taken in incredible numbers in the Skeekine River. They are so absolutely saturated with oil, that when dried and lighted they may be used as candles. The natives express the oil in considerable quantities, which, after being kept until it has reached a ripe old age, with sufficient rancidity, is used by them as a special delicacy on state occasions. This oil has been seriously proposed as a substitute in medicine for cod-liver oil. I can aver that it is equally as loathsome. I think it not improbable that, at no distant day, the fisheries off the Alaskan coast will yet become as important to the west as those of Newfoundland are to the east.

Few of us here have any idea of the real value of the fur trade, or how much it has proved a source of wealth to those engaged in it. The endless bickerings, the open aggressions and the actual warlike encounters of the rough, lawless, but generous-hearted servants of the old North-west Fur Company and the Hudson's Bay Fur Company have passed into history, and may serve to indicate what estimate the traders themselves placed upon their vocation. I think I do not exceed the truth when I assert that, for an outlay of \$50,000 a year, the Hudson's Bay

Company reaps an income of at least half a million dollars a year (rating the furs at London prices) from the New-Caledonian district. Yet this is, by no means, the best-paying district under control of this company. Quoting from Dall's Alaska, I find that, during seventy-six years, Alaska has yielded 3,838,402 skins of fur-seal, which, at an average price per skin during that time, would be \$11,500,206. Besides this, we have of sea-otter skins, 262,546; beaver skins, 390,972; black and silver fox, 66,081; marten skins, 46,911. These are simply the more important furs, and, after making the proper allowance for the thieving propensities of the Russian officials, show conclusively that the fur-trade alone is a source of immense revenue.

Now, these statements as to the resources of the North-west are founded on what has been developed by the comparatively small demand of a distant market, and a sparse population near at hand. Under the stimulus of a completed Northern Pacific Railroad, we may fairly expect an immense development of the resources, and a corresponding increase of demand, or *vice versa*. The whole future of British Columbia, with all its prospective resources, lies in the completion of that grand enterprise. Who may tell what population the broad prairies and fertile valleys of that region will be supporting half a century hence, or what will be the products of its looms, its mills, and its mines, before even this generation shall have passed away? Less attractive regions, under a less onerous system of taxation and a greater encouragement to individual enterprise, are now the homes of millions. Remove the burden of taxes from British Columbia and Vancouver's Island, support the hands of their citizens, and it will give a new life to a new north-west. Compare the thrift south of the Strait of Fuca with the stagnation north of it, and remember the general fertility of resources in both, and the conclusion is unavoidable that a difference in government must have something to do with

the diverse condition we see in British Columbia and in Washington Territory. As for Alaska (with its similarity, so striking in many respects, to the Scandinavian peninsula), may we not fairly hope its future will, in good degree, be comparable to the present of Sweden and Norway? Its resources are, for the most part, still lying fallow. Time, and time alone, can decide how much it is to be worth to us from a financial standpoint. Enough, I think, is known about the region to make us suspend, for the present, at least, any adverse judgment.

There is, however, still one more aspect in which we may view our occupancy of that territory. In taking a retrospective view of the doings of our race, we find its mission has been to civilize. It has ever been a catalytic element, whose presence has produced a fermentation among the other national elements. It has broken up the unstable compounds and replaced them by more staple ones, which, from fixedness of character, were better fitted to play some important part in the world's history. More than three thousand years ago our Aryan fathers left their early home, north of the region we now know as India, and began their beneficent migration. The race developed in India a civilization we are only now learning fully to appreciate. It peopled Greece, where its language flooded out in blind Homer's recitals, and it gave Thermopylæ to the world. It overflowed Italy, where its great, ever-varying, ever-fitting yet ever-constant character produced the poetry of Horace and Virgil, the histories of Tacitus and Livy, the Theodosian and Justinian codes. "There was a time," says Müller, "when the ancestors of the Celts, the Germans, the Slavonians, the Greeks, the Italians, the Persians, and the Hindoos were living together beneath the same roof." Our dearest terms, "God, father, mother, son, daughter, heart, tears, and home, can be traced to that starting-point." Saturated (if I may be allowed the expression) with the constant instinct of conquest, to be followed by civilization, it has

always adapted itself to the ends it was unconsciously striving after. It found a way open, or it made one, and from every bloody field left in the track of its wanderings have sprung up the compensating fruits of an improved morality, and a greater mental activity than existed before. Its every footprint on a soil has been a blessing; and it is remarkable that the one common feature, the best and most fruitful feature, in all the races that have an infusion of its blood, is just the one in which they most resemble the parent stock,—a constant striving after better things, which is so utterly unlike the self-satisfied condition of other nations. Hawthorne says, with truth, “The world owes all its onward impulses to men ill at ease. The happy man invariably confines himself within the ancient limits.”

Having received so much, we are now called upon to shoulder the burden of bringing Alaska under the domain of law, civilization, and increased usefulness to the world. It is manifest destiny. It is the working out of our inherited instructive traits. It is duty, and, perhaps, the grand finality of our national existence, as it may prove the last and most difficult task left for us to accomplish.

VI.

THE PALEOGEOGRAPHY OF THE NORTH-AMERICAN
CONTINENT.

BY T. STERRY HUNT, LL. D., F. R. S.

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The fitness of bringing before the American Geographical Society a theme which seems to belong rather to the province of the geologist will be admitted, if we consider that geography is in fact but a branch of that comprehensive study to which we may give the name of geology, and which, in its wider sense, includes the whole natural history of our earth from the earliest times to our own. To the geographer belongs the study of the present condition of the globe, its oceans and lands, its mountains and rivers, its soils and climates, and its plants and animals. Past and present astronomical and meteorological agencies, and the action of internal forces, have combined to produce the results which are the object of the geographer's study. The structure and arrangement of the materials of the earth's crust, its architecture, as it were, give rise to *geognosy*, while the theory of the origin and development of the globe constitutes *geogeny*. *Geogeny*, *geognosy*, and *geography* are thus three great divisions of the earth-science, or *geology*.

To the geological student the world of modern geographers is not the only one. In the distribution, arrangement, and varied nature of the rocky strata of the earth, and in the extinct races of plants and animals which they

envelop, he finds authentic evidence that each past geological period has had its own geographical history. Parts of the present ocean's bed cover the ruins of continents submerged, and our own continental areas included at times fresh-water lakes, seas with verdant islands, salt-water basins in the midst of a dry and desert land, or coastal regions swept by great marine currents, often charged with ice; and these varying conditions were in turn exchanged for "the stillness of the central sea." The record of animal and vegetable existence is traced backwards through all this varying succession until the dawn of plant-life is dimly seen in the oldest known of our rocky strata, those of the eozoic age. The student of organic fossils constructs from their history the sciences of *paleophytology* and *paleozoölogy*; and we may also, from the records of the attendant physical changes, construct what may be appropriately named *paleogeography*, or, the geographical history of these ancient geological periods.

This study is one which has often engaged the attention of geologists, and maps have been made to show the distribution of land and water on the European and North-American continents in various geological periods, based upon the distribution of the sedimentary rocks. Other principles may, however, serve to guide us to a further knowledge of these periods, of the rain-fall and evaporation over certain areas, of ocean-currents, and of the distribution of organic forms; principles which have not yet received all that attention which is their due, and which may be, to some extent, illustrated on the present occasion in a sketch of certain phases in the history of the North-American continent.

The period in which were deposited the various crystalline rocks of the Laurentides, the Adirondacks, and the Appalachians, offers in its greatly disturbed and contorted strata but very obscure data for its geological history. That the deposition of mechanical sediments went

on under conditions not altogether like those of later periods, but still so much resembling them as to admit of the existence of both vegetable and animal life, seems clear, and justifies for them the name of eozoic. That the long eozoic age was marked by several breaks is also evident from the fact that in these crystalline rocks have been included three or four distinct and unconformable series, if not many more, all of which are found developed alike in the Laurentian and the Appalachian regions. Of these series, however, over great areas, only the oldest and most resisting, the Laurentian, remains.

What Prof. Dana has called the azoic, but which may rather be called the eozoic, nucleus of the North-American continent includes portions of all of these; but, as defined by him, represents but a small portion of the land which in this part of the globe appeared above the ocean at the beginning of the paleozoic age; since besides the crystalline rocks of the Laurentides and the Adirondacks must be included the similar ones of the Appalachians, which now stretch from the Gulf of St. Lawrence nearly to that of Mexico, and in their present extent represent but a small portion of a great continent of whose former outlines we can form but an imperfect notion. Connected to the north-eastward with the Laurentide region, it must have extended far into the Atlantic, and formed the eastern limit of a great paleozoic basin, the western boundary of which was the Rocky Mountains. Within the basin were deposited the sedimentary formations of the New York system, including the Cambrian, Silurian, Devonian, and carboniferous rocks. The region in the vicinity of the Adirondacks, and to the west of them, was at the commencement of the paleozoic period a great plateau, which, at one time, was but partly submerged, and presented wide tidal flats, the sands of which are marked by ancient ripple-marks, wind-marks, and tracks of the animals belonging to the time of the Potsdam sandstone.

About this period, however, great thicknesses of sediments, differing widely in volume and in mineral character from those of the plateau, and in part made up of the ruins of the crystalline rocks of the eastern land, accumulated along the eastern shores of the basin. Meanwhile the plateau was, during a part of the time, above the level of the sea, and in parts cut off from the great oceanic circulation, and exposed to the influence of a very dry climate. The conditions which exist at the present day in the interior of our own and other continents, and give rise to deserts and salt lakes, were present at that early period over the great continental plateau already indicated. These conditions are dependent on mountain-barriers, causing the precipitation of a great part of their moisture from the currents of air which traverse them, so that the regions beyond, with a great rate of evaporation, have a scanty rain-fall, from which results the drying-up of saline waters and the generation of deposits of gypsum and rock-salt; in similar conditions, as I have endeavored to show, the magnesian limestones, which are the general associates of these, can alone be formed. The history of this great paleozoic basin affords ample evidence that between the limits of the Appalachians and the Mississippi considerable areas occupied by evaporating sea-basins existed at several periods in the paleozoic age; the first known example appearing in the subordinate Ottawa basin at the time of the deposition of the so-called calciferous sand-rock of the New York series, which is really a dolomite, inclosing in some parts gypsum, and impregnated with strong brines, which, from their great density, can be nothing else than ancient bitterns. To this local formation (followed by the Chazy) succeeded the wide-spread Trenton limestone, which, by its chemical characters, not less than its fauna, shows an open sea, and points to a movement of subsidence which disturbed the former levels, and made a partial break in the paleozoic series. This is

shown alike in its partial discordance with the underlying formations, the wide invasion by the Trenton sea of the adjacent land, and the noticeable break in the succession of organic life. The gradual filling-up of this sea by the influx of mechanical sediments, the ruins of older rocks, apparently from the north and east, and the accumulation from this source of the Utica, Hudson River, and Oneida formations, mark the close of this order of things, and serve to divide the rocks of the second fauna, or Upper Cambrian (Lower Silurian of Murchison), from the succeeding period, or Silurian proper (Upper Silurian of Murchison).

Following this disturbance there reappeared over large areas of the continental plateau conditions similar to those of the calciferous time, in which the marine fauna of the Clinton and Niagara formations became overlaid by the dolomites of the Salina group, which, with their interstratified gypsum and rock-salt, occurring over more than one area at this horizon, show that evaporation was carried to such an extent as to produce in Central New York and in Western Ontario great Dead Seas, whose bitter and saline waters were destitute of animal life. Over the deposits of this period, and beyond them, over the Upper Cambrian rocks, which formed the eastern shore of these inland Silurian seas, the waters of the ocean again flowed, and we find in the limestones of the Lower and Upper Helderberg divisions reproduced once more the conditions of the Trenton period. The movement which permitted this must have depressed considerably the mountains of the eastern shore, and for the first time in the paleozoic period permitted the ocean's waters to invade the Appalachian hill-country, in which, while no evidences of earlier paleozoic deposits are met with, strata with organic remains belonging to this period (the close of the Silurian and the commencement of the Erian or Devonian) are found. These deposits, often themselves much disturbed, are met with among the valleys of

Maine, New Hampshire, and Quebec, resting unconformably upon the older crystalline rocks, while they occupy similar positions upon the Upper Cambrian rocks of the Hudson and St. Lawrence valleys.

This submergence, which spread over wide areas the marine deposits of the Helderberg limestones, was, like the corresponding event of the Trenton period, followed by a silting-up of the sea, and the deposition of the argillaceous beds of the Hamilton formation then took place, followed by the great mass of sandstones and shales of the Erie division, the so-called Devonian or the Erian series of Dawson. These sediments, which came from the north-east, and thicken rapidly in that direction, marked the commencement of that great influx of material which continued into the carboniferous time and built up on a subsiding ocean-floor the great volume of later paleozoic sediments which is seen alike in Nova Scotia, and in New York and Pennsylvania. Made up of the ruins of older rocks, they show the results of the wasting and wearing-down of a great area of solid land of which the eozoic regions of New England and the British maritime provinces are the vestiges. That the shores of the sea in the carboniferous period already bore a vegetable growth is shown by the remains of ferns found by Newberry in the marine limestones of that date in Ohio. A little later, in the time of the Hamilton formation in New York, there was an abundant growth of tree-ferns on its eastern shore, while further to the eastward, in Gaspé, the struggle between sea and land is shown in the presence of terrestrial vegetation in marine limestones probably of the Oriskany age.

As might be expected from the source of the land-making sediments, the whole of the Erian series in Gaspé is made up of them, to the exclusion of limestones, while to the westward the limestones of the lower part of that series, and later those of the carboniferous, are overlaid at both periods by these sediments, which, gradually

encroaching upon the sea, made a soil for the vegetation of the coal. That even at this period the meteorological conditions producing great dryness recurred at times over portions of this region, is shown by the gypsum and salt deposits of the carboniferous age, which are found not only in Pennsylvania and Michigan, but far eastward in Nova Scotia and New Brunswick. It is not necessary here to recall the story of the carboniferous period, with its great development of terrestrial vegetation over low marshy plains, in which appear, for the first time, the remains of terrestrial mammals and air-breathing mollusks.

The close of the paleozoic age in our eastern basin was succeeded by movements which raised above the sea the vast accumulations of sediments whose history we have sketched, and exposed them, contorted and dislocated, to that process of erosion which, operating down to our own time, has given its present relief to the continental area now occupying the place of the former paleozoic basin. Unlike the Old World, this eastern portion of the New has little to show for the long mesozoic period, during which so much of Western Europe was submerged. Along the Appalachian line, however, were formed in this age the remarkable sandstone deposits, of which those of the Connecticut and the Delaware are examples. These accumulations, many thousand feet in thickness, and made up in great part of the ruins of adjacent rocks, were formed in the lakes or estuaries, and exhibit in their character evidences of rapid deposition in subsiding basins, a process which was accompanied by great volcanic activity in and around these areas. Somewhat later the deposits of cretaceous and tertiary time were laid down beneath the waters of an ocean which stretched along the eastern, southern and western shores of the now elevated paleozoic area. Sediments of these periods, moreover, occur in Greenland, Spitzbergen, and elsewhere within the arctic circle, where strata, including coal and the remains of an abundant terrestrial flora, indicate as late

as the middle tertiary a climate in these far northern regions as mild as that now prevailing in Pennsylvania and Ohio, and a vegetation not dissimilar. Did time permit, we might trace, with Dr. Gray, the probable southward migration of this ancient northern flora into our Appalachian region. That similar climatic conditions had existed in the arctic zone at a much earlier time, is apparent from the remains of an abundant vegetation in the carboniferous period ; nor is it certain that the present rigorous climate was ever known there until the miocene age was succeeded by that change which ushered in the present order of things, and, from the great part that ice played therein, is called the glacial period. To explain this changed condition of the arctic climate three classes of agencies have been invoked ; viz., astronomical, chemico-physical, and geographical. While the former are supposed to have produced variations in the amount of heat received from the sun, I have shown that the chemical changes which have been effected in the atmosphere have served to render it less and less fitted to retain terrestrial and solar heat, and to protect the earth's surface from cooling by radiation, until a point was reached where we may suppose that changes in the areas of sea and land, and consequently in the distribution of warm equatorial currents, would suffice to produce over extreme northern and southern regions a temperature like that which in Greenland succeeded, after a considerable but unknown interval, to the mild climate of the miocene time. While these latter are doubtless true causes, adequate, either conjointly or separately, to produce a great refrigeration, it is by no means improbable that astronomical agencies may have coöperated. Even with the atmospheric conditions of earlier times, we may conceive glaciers to have existed in elevated regions and at high latitudes, and probable evidences of ice-action have been pointed out in the strata of paleozoic times.

The phenomena which in eastern North America and

elsewhere are referred to the glacial period are the erosion of valleys and lake-basins ; the rounding, grooving, and polishing of rock-surfaces ; the accumulation of great masses of unstratified clay, sand, and pebbles ; the so-called boulder-drift, together with the formation of ridges, moraines, etc. To these succeeded the stratified marine clays and sands of what Dana has called the Champlain epoch, containing a fauna identical with that of our present northern seas. That these post-pliocene deposits show a temporary depression of the previously-uplifted continent far below its present level, and that ice in some form played an important part in the phenomena of the period, or of one immediately preceding, are points upon which all are agreed ; but beyond this, wide divergences of opinion are met with, which concern primarily the time at which this submergence took place ; and, secondarily, the mode in which the ice-action was exerted to produce the striation and the accumulations of unstratified material. On the one hand, it is asserted by a large school that these were produced when the region was at its present altitude, or even much higher above the level of the sea, and was exposed to a wide-spread glacier-action. But among this school opinion is again divided. Thus, Agassiz maintains the existence of one immense continental glacier or ice-cap extending over the arctic and a great part of the temperate zone, moving downward from the polar region, and of such immense height as to surround and overflow the summits of our highest hills, which he supposes may have required a vertical thickness of two or three miles of solid ice. This great glacier, having its under side filled with fragments of rock, is conceived to have acted like a rasp, cutting, grinding, and shaping the underlying rocky surface ; and, when the period of the gradual melting came, to have left behind it the glacial drift which we now discover. Dana, on the other hand, while maintaining that these phenomena are due to terrestrial glacial action, regards the motion of a central

or common glacial source, or, in other words, a universal glacier, as unfounded, but supposes, nevertheless, the existence of distinct glaciers of enormous magnitude. Such a one, according to him, had its origin along the watershed between the St. Lawrence and Hudson's Bay ; but, recognizing the necessity of an elevated source to give motion to the glacier, he supposes that this region, which is not more than 1,500 feet above the sea, was then raised many thousand feet above its present level, forming a mountain-plateau from which an immense glacier spread south-eastward to the ocean, filling the St. Lawrence valley, and covering, with its icy mantle, both the Green Mountains and the White Mountains, precisely like the continental ice-cap of Agassiz. The movement of such a glacier, however it may serve to explain the south-eastward striation of the Ottawa valley and of New England, leaves unaccounted for the not less distinct evidences of glacial action in a transverse direction, which are seen from Labrador up the St. Lawrence valley, as far as Lake Erie. These evidences consist alike in the striation everywhere visible, and in the forms of isolated hills of eruptive rocks, which, rising from the champaign country in the vicinity of Montreal, have bold and rounded fronts on their north-east sides, while their ruins form a talus to the south-west, and have even been transported long distances in this direction. All of these facts combine to show a long-continued eroding action from the north-east. Prof. Dana would explain this by a supposed south-westward flow of the lower part of the great glacier in this direction, along the St. Lawrence valley, while its upper portion was moving in a transverse course, across the mountain-ranges of the Appalachians, towards the sea. But this, even if we admit its adequacy to explain the phenomena of the St. Lawrence valley, leaves unaccounted for the extension of the same south-western striation around the basins of the great lakes, as far as Michigan and Superior, to explain which would

require the creation of another great glacier in the northern regions.

In both of the above theories of glacial action, a great depression of the surface is supposed to have succeeded the glacial period, effacing, in the one case, the great mountain-plateau to the northward, and submerging the glaciated region so as to permit the deposition above its surface of the stratified clays and sands which so often overlie the boulder-drift, from the rearrangement of which they appear to have been, in part, derived.

Besides these theories, which seek to explain the various glacial phenomena by the action of ice upon solid land, there is a third view, which, while maintaining the intervention of local glaciers, supposes that by far the greater part of the results which we have described was produced by sea-borne ice, during a period of submergence. This earlier view, which has lately been ably advocated by Dawson, endeavors to explain the phenomena in question by causes now in operation, rather than by supposing a condition of things which it is at once difficult to conceive and to explain, and is thus more in harmony with the principles of modern geological science. It maintains that at the beginning of the glacial time, whose record is written in such marked lines over the surface of north-eastern America, the region was already under water, and was slowly rising, though with minor oscillations of level, from the ocean, the more western portions first. Along the eastern border of the land, over its still submerged plains, and through its valleys, then flowed the arctic current, as it now does along the coast of Labrador and the shores of Newfoundland, bearing great quantities of floating ice, by the combined action of which, with the current, the rocky strata were eroded, and the valleys and lake-basins excavated. At an early period in this order of things, the great arctic stream, pursuing, in obedience to the force impressed upon it by the earth's rotation, a south-western course, passed over the region of the

lakes, and excavated the basins of Superior, Michigan, Huron, and Erie; while at a later time, diverted further eastward by the emergence of the Laurentides, it would pass along the present St. Lawrence valley, and thence south-westward to that of the Mississippi. To quote, in this connection, the language of Dawson, "The prominent south-western striation and the cutting of the upper lakes demand an outlet to the west for the arctic current. But both during depression and elevation of the land, there must have been a time when this outlet was obstructed, and when the lower levels of New York, New England, and Canada were still under water. Then the valley of the Ottawa, that of the Mohawk, and the low countries between lakes Ontario and Huron, and the valleys of Lake Champlain and the Connecticut, would be straits or arms of the sea, and the current, obstructed in its direct flow, would set principally among these, and act on the rocks in north and south, and north-west and south-west, direction. To this portion of the process I would attribute the north-west and south-west striation."

As the process of elevation proceeded, and the northern current found its passage to the sea by channels further and further east, the conditions became such as to permit the deposition, from seas comparatively undisturbed, of the stratified clays and sands which, in many cases, rest directly on the boulder-clay. Such beds, with marine fossils, are found in the St. Lawrence valley, at heights nearly 500 feet above the sea, and others, though without fossil remains, at much higher levels. Portions of floating ice, however, still dropped, from time to time, the rock-masses with which they were freighted, in the midst of these stratified clays; nor are there wanting evidences, in the Lower St. Lawrence, that a second invasion of icebergs may have given rise to a new accumulation of boulder-drift, after the deposition of the stratified clays, which there overlie, at Trois Pistoles, a still older deposit of the same kind, as noticed by Dawson. Such

a result might readily follow from a small local and temporary depression of level during the general elevation.

That some oscillations of the kind took place during this period may be inferred from certain facts in the history of the great lakes. The basins of these, according to Dr. Newberry, are so connected with each other and with the sea, by channels now filled with drift-deposits, that were these removed and the continent slightly elevated, the waters of the great lakes would be discharged through each other into the ocean, by the valleys of the Hudson and the Mississippi. The lake-basins of Michigan, Huron, St. Clair, and Erie, in fact, occupy a great depression, which was first excavated in the nearly horizontal paleozoic strata, and then filled up with stratified clays, in which the present basins were subsequently fashioned, so that from alternations of level the process of lake-erosion has been repeated over this region.

I have elsewhere pointed out that the base of these clays, beneath the south-western part of Lake Erie, of Lake St. Clair, and in much of the adjoining country, is far below the bottom of these lakes; so that it would seem that these present lake-basins have been excavated from the post-pliocene clays, which, in this region, fill a great ancient basin previously hollowed out of the paleozoic rocks, and including in its area the south-west part of the peninsula of Ontario.

The valleys of the hills and the shores of the islands, which then rose above an icy sea, would be filled with local glaciers, of which the marks still remain, which gave their tribute to the northern current, already charged, as now, with immense icebergs from the polar region, and these in great part submerged and half-stranded masses, urged by wind and tide, would plough and furrow the bottom, there piling up the unstratified heaps of boulder-drift, to which the earth and rocks, borne by the melting

ice, would contribute. It is a point of great significance, insisted upon by Dawson, that this glacial drift throughout the St. Lawrence valley often contains marine shells, and that the included masses of rock are frequently incrustated with barnacles and with polyzoa, showing that these materials must have been gathered not from the surface of a long-emerged continent, but from the bottom of the sea.

I have thus endeavored to set forth briefly the very different views which have been advocated in explanation of the phenomena of the glacial period in the history of our continent. These, according to the views of the land glacialists, were limited to a definite epoch, and operated simultaneously over a vast area, which, according to one hypothesis, was not less than an entire hemisphere. Those, on the other hand, who restrict the action of land-ice to local glaciers, and call in the aid of floating ice and the polar current, maintain that the process of glaciation is one limited rather by place than by time. Ever since the conditions of the earth have been such as to give rise to the formation of polar ice, the shores and the shallow seas, to which the arctic current flowing southward had borne it, must have been subjected to glacial action such as we have endeavored to describe. From the days in which the glaciation of our valleys was effected the process has not ceased, but has been transferred to other regions; and we conceive that the banks of Newfoundland, if now raised above the ocean's level, would present striations and glacial drift, which, but for the presence of remains showing its formation to belong to the historic period, would be indistinguishable from the ancient boulder-clays of the St. Lawrence valley.

The attempt which I have made, to-night, to set before the Geographical Society some phases in the physical geography of a portion of our continent, from paleozoic times downward, might be made more complete by trac-

ing the development and spread of animal and vegetable life over the upraised continent. The migrations of the present flora, especially, present many questions of great interest alike to the botanist and the geologist, but the adequate discussion of this question, even did time permit it, is one beyond my powers.

The view which I have announced above, that *the crystalline rocks of the Appalachians represent but a small portion of a great continent*, of whose form and outlines we can form but an imperfect notion, but which formed *the eastern limit of the great paleozoic basin*, is not a new one. So long ago as 1842, H. D. Rogers concluded that the sediments of the paleozoic age in the Appalachian region must have come from a continent, which, however, he placed to the south-eastward. Hall, in the introduction to the third volume of his Paleontology, has well shown the distribution of our carboniferous and still older paleozoic sediments, and their rapid increase in volume and in coarseness towards the north-east; and in my review of this work, in 1861, these sediments were spoken of as "evidently derived from a wasting continent," Hall, himself, having said, "We may have had a coast-line nearly parallel to and coextensive with the Appalachian chain." I have, in the present lecture, insisted still farther upon this view, and advanced, in favor of an elevated eastern continental area, an argument adduced from the climatic conditions which, as I have long since shown, must, throughout the paleozoic times, have prevailed at intervals in the basin to the westward. It was not until this address had been delivered and written out, as above, that I received the American Journal of Science for December, 1872, in which Prof. Joseph Le Conte announces, in language almost identical with my own, that the eastern part of the basin received its sediments "especially from a continental mass to the eastward." He admits that the gneissic region of the Atlantic slope of the Appalachians is Laurentian; but I

had already, in 1870, asserted the eozoic, and, in part, the Laurentian age of these rocks, hitherto regarded, in great part, as altered paleozoic strata. While it is gratifying to find my views on these points (and, in fact, my entire scheme for "reconstructing the whole foundation of theoretic geology on the basis of a solid earth") adopted by Prof. Le Conte, I deem it but right to call attention to the priority of my own conclusions.

VII.

ON MARTIN BEHAIM'S GLOBE, AND HIS INFLUENCE
UPON GEOGRAPHICAL SCIENCE.

BY REV. MYTTON MAURY.

READ MARCH 19TH, 1872.

As early as the first half of the twelfth century the city of Nuremberg had attained a position of importance among the cities of Central Europe. Her internal commerce was prodigious. In her relations to the East India trade she might be called an inland Venice. To her mart flocked merchants and traders from the surrounding region to supply themselves with the costly products of the distant East. Here were consigned silks and shawls of exquisite texture, wrought by the deft and delicate hands of the children of the sun—jewels from Golconda's mines—spices that grew by Ganges' stream; and from her teeming magazines these articles of Oriental luxury were dispensed to enhance the comfort and gratify the taste of the barbarians of the west.

The tolls that are levied at her gates make her revenue more than regal: magnificent churches arise, their shrines embellished with the costliest gems of art; palaces literally crown her well-stored warehouses; wealth multiplies; power grows. Six thousand warriors are equipped by her citizens to serve in the Imperial armies. Once and again she is deemed worthy the presence of the national Diet. Laws for the empire issue from the market-town.

Prominent among the merchant-princes who contributed to the prosperity of this commercial metropolis, we find

the family of Behaim. Originally from Bohemia, as their name imports, they had been driven thence by religious persecution, and found refuge in a city large-minded and large-hearted, where divergence from ecclesiastical orthodoxy was deemed a less flagrant enormity than divergence from practical honesty, and where it was not considered an essential part of the service of God to augment the annual death-rate by the concrementation of heretics. Here the Behaims attained no inconsiderable wealth, and maintained a position of high regard in the community.

The acquisition of money, however, is not the solitary object whereon the family concentrates its energy.* To members of a modern geographical society, such as I now have the honor of addressing, one of the Behaims, who lived in the second half of the fifteenth century, and was glorified by the name of Martin, is a personage of singular interest.

In the first place, he furnishes us with authoritative data for ascertaining the condition of geographical science in his day. Among the archives of the family is preserved a token at once of Martin's regard for the city of his nativity, and of his own proficiency in geographical studies. The relic in question is a globe, representing the world as he and his contemporaries supposed it to be constituted. This Martin manufactured in 1492, and presented to the city of Nuremberg.

The map of the globe consists of papier-maché, over which is a crust of gypsum, and over this again parchment is stretched, upon which the drawing is executed. In size, this work of art alone was not imposing, its diameter being only about twenty inches. But it possessed, in the days of its youth, divers other attractions. With a degree of scepticism regarding the interest felt by

* Mathematically speaking, they may be said to have left the multiplication-table and advanced to the process of division—a stage not always reached by men of wealth.

the burgomagisterial mind in geographical studies, Martin sought to popularize the somewhat hard features of Mother Earth by a *ruse* not altogether unknown to beautifiers of the present day. The old lady was gotten up right handsomely; Neptune rejoiced in a domain of brilliant ultra-marine; the lands were brown or green, according, we presume, to their supposed sterility or productiveness; the snowy mountain-crests were of glistening white. The multitudinous and multifarious inscriptions, which render the globe a miniature gazetteer, were made to present a still more popular appearance. Gold and silver, red and yellow letters, impressed even the untutored eye with an idea of the inestimable value of the information imparted. Gabriel Nützel, Paul Volkamer, and Nicolaus Groland, the chief men of the imperial city, who, as Behaim informs us, in an inscription at the north pole of his globe, urged him to construct this elaborate monument of geographical science, must have congratulated themselves upon its goodly appearance.

Time, on the whole, has treated Martin's labor with not a little partiality. True, the gorgeous coloring hath somewhat lost her original glory; the mellowness of antiquity supplants the lustre which bedazzled the eyes of our worthy burgomasters when the distinguished savant presented to their official body this fac-simile of Mother Earth.

But although the ocean of glorious ultramarine is converted into one immense black sea, and the gold hath lost its glittering identity, still the *lines* which show the supposed position and configuration of continents and islands are altogether intact; and the several portions of land and sea retain their names. All is, therefore, preserved which serves in any way as an exponent of the general condition of geographical science in 1492.

We say general with some degree of emphasis; for on examining the globe we find that its constructor represents himself as, in the main, a compiler; and states that his

guides have been Ptolemy, Marco Polo, and Mandeville. And inasmuch as unwarranted assertions have been offered in regard to the geographical *discoveries* made by Behaim, it is as well explicitly to state that this is what he says himself.

While, therefore, the globe of Behaim is not to be taken as an index of its constructor's achievements in geographical discovery, it has extraordinary interest, considered as a fair exponent of the geographical knowledge possessed by himself and his contemporaries.

A glance will show us what this knowledge was, and will reveal the fact that, in some particulars of geographical detail, the darkness supposed to characterize the age of Behaim is more imaginary than real. It is true there is a large amount of romance intermixed with Behaim's incontestible facts.

In regard, for example, to the Island of Zanzibar, Martin borrows from Marco Polo some very poetical items. These are of the greatest interest to the physiologist, and serve also to illustrate in a very striking manner the intrepidity of the missionary to whose efforts the Zanzibarians owe their acquaintance with Christianity. The reverend adventurer, seated conveniently upon the apex of one of their mountains, is encouraging the idolaters at its base to unite with him in prayer. His must needs have been an heroic soul; for his auditors, we are assured, have four times the strength of Europeans, are glorified with great long ears, wide mouths, and appalling eyes, and have hands four times the size of those of ordinary mortals.

Pliny lends a charm to the dry details of geographical fact by supplying our cosmographer with illustrations of the natural history of the globe. Some of the specimens depicted, if judged by zoölogical adepts of the present day to be somewhat difficult to classify with species now recognized, are nevertheless strikingly picturesque. Not far from the equator, mermaids, with golden tresses

and azure eyes, are floating tranquilly upon the waters; in their neighborhood appears a sea-lion, which, with a locomotive apparatus but poorly calculated to give his very terrestrial carcass support upon the briny surface, nevertheless heroically maintains his position; while not very far hence a sea-horse, half submerged, is endeavoring to effect a landing at Cape Verd. A small craft, heading for Antilia, seems threatened with demolition by a parti-colored sea-serpent; while another specimen of more alarming mien is balancing himself upon the convolutions of his tail, a little to the south of the "circulus equinoccialis," and preparing to engulf one of Martin's inscriptions. Besides these are other variations from strict geographical fact, which readily appear on inspection.

With all its errors and defects, however, the globe of Behaim presents a large proportion of correct detail. We, of course, are nowhere. The place of the western continent is occupied by Cathay and adjoining provinces, supposed to be made up, in a large measure, of golden mountains and pearly strands. Setting aside this glaring omission, it is interesting to notice that Africa is represented as being circumnavigable. Importance attaches to this point, inasmuch as the globe was constructed as early as 1492, five years before Vasco de Gama had accomplished the passage to India *via* the Cape of Good Hope. Behaim had obtained his knowledge of this fact from ancient authorities. Phœnician navigators, in the service of Pharaoh Necho, King of Egypt, had circumnavigated this continent; and Xerxes had given orders to one Sataspes to do the same thing. Failing to perform the king's behest, poor Sataspes was impaled, a calamity showing at once the inflexible rigidity of Persian laws, and the certainty felt by the king that the exploit in question could be achieved. Another point of very great interest is that Behaim, who was in Nuremberg, constructing his globe, at the very time at which

Columbus was making his first voyage, and before his return from that voyage, represents nothing in the shape of land larger than Cipango, or Japan, as intervening between Europe and Cathay. This at once involves in suspicion the idea that Columbus was in any sense the originator or exclusive possessor of the idea that steady westward sailing would bring one from Europe to the native country of pearls, gold, and frankincense.

I may perhaps be excused the momentary digression if I add that the suspicion thus suggested by the globe of Behaim is completely divested of all doubtful character by the celebrated letters of Toscanelli to Columbus. These bear date 1474, and contain directions as to the course which Columbus should pursue.

To resume, however, our proper subject. Not alone does Behaim commend himself to our regard as one who was in possession of all the best geographical knowledge of his day. He was not a mere compiler, but indirectly and directly a producer. First let us see how, in an indirect manner, he contributed to enlarge the field of geographical science.

Conspicuous among the extraordinary men of the world figured one, in the fifteenth century, named Müller, and designated, by the piety of his parents, John. Born at Königsberg, or King's Mountain, his is commonly known by a Latin adjective, which commemorates this fact, Regiomontanus.

John of Königsberg (to turn him into respectable English) was one of those mediæval personages who rescue their age from the obnoxious epithet dark. He was a star of no mean magnitude in the intellectual heavens. In the department of mathematical science he may not unfairly be ranked with Des Cartes and Newton. He clearly saw that an absolute prerequisite in his day, for the advancement of scientific investigation, was greater accuracy in the instruments employed.

Those very respectable heretics, the Arabians, had, it

is true, reached some degree of excellence in this line. Among the sins of which they were guilty, during their domination in Europe, was not that of contemning or thwarting scientific pursuits. It appears in the highest degree probable that they made the Castilians acquainted with the use of an instrument called the astrolabe, or star-catcher. What establishes this, with little room for doubt, is that Raimund Lullius,* a Castilian author, writing in 1295 on the *arte de navegar*, describes such an instrument as one of those in use among mariners.

Without entering into details at once unnecessary and unpopular, this apparatus may be described as the modest progenitor of our quadrant and sextant. It enabled the observer on land to determine, with tolerable accuracy, the altitude of the heavenly bodies; for this purpose it had long been in familiar use among the Arabians. "An observatory, in the gardens of the Caliph of Bagdad, contained a quadrant of fifteen cubits in radius and a sextant of forty," while at Samarcand instruments of even greater size were employed.

The Arabians, moreover, we have good reason to suppose, had advanced beyond the mere terrestrial use of this apparatus. The geographer Edrisi, an Arabian, born at Ceuta, in Africa, in 1099, gives in his *Geography* a description of the Azore Islands, under the name of Hawk or Vulture Islands. It is altogether likely that some of the miscreant navigators had made their way to the islands in question. Possibly the cross-staff, but more probably the astrolabe, had given them the triple casing of brass, which Horace deemed requisite to fortify the adventurous seaman's heart.

As used by the Arabians, however, and introduced by them among the Castilians, the astrolabe did not, and could not, altogether justify its somewhat pretentious title of star-catcher. Sometimes the stars refused to be caught,

* See Humboldt, *Krit. Unters.*, i, 235.

and were not in the field when they should have been meekly captured. Such was the construction of the astrolabe that its accuracy depended on the stillness of itself and the observer. Its action was least unsatisfactory when it was suspended from an immovable support. Without much difficulty, therefore, can we appreciate the fact that if such an instrument were affixed to the mast of a moving vessel, the maximum of steadiness and the consequent minimum of error could scarcely be expected. For let us imagine the situation and efforts of an observer on a vessel in a moderately stormy sea. The night is clear, but the waves run high. The craft of the mariner is executing a movement too impressive in its effects upon the delicate human organization to pass from memory or to need description here. What is its influence upon the should-be taker of stars? Those brilliant points, that seem so imperturbably calm, so unutterably dignified, as well-nigh to exclude the idea that they move, are executing a veritable fandango. Not unfairly may even the stars called fixed be stigmatized as *ignes fatui*. Each plunge of the vessel gives them a different apparent altitude. Now they are exalted above, now depressed below their true position, and the perplexed observer has almost to guess where his horizon is, and where the star whose height above that horizon he fondly hopes to determine.

In describing the experiences of Vasco de Gama in his passage round the Cape of Good Hope, Barros quotes, from Pigafetta, an amusing account, which aptly illustrates the inconvenience which that ancient mariner experienced from the cause under consideration. De Gama reaches the Bay of St. Helena, on the coast of Africa, and makes a landing there, partly, said Barros, for the purpose of getting a supply of water, but partly, also, with the idea of getting an accurate determination of the altitude of the sun. "For," he says, in explanation of so singular, so amphibious, a piece of seamanship,

“the Portuguese had only a short time before this availed themselves of the astrolabe in navigation; and the ships of Vasco were small, so that, on account of their plunging, he could place no reliance upon observations made on board.” The instrument, therefore, was but poorly adapted to the purposes of the mariner. Regiomontanus well understood its defects, and, in his workshop at Nuremberg, applied himself to its improvement; and what is specially to our present purpose, on turning to the earlier history of M. Behaim, we find that worthy acquiring from the master-spirit of Johann Müller a knowledge of the theory and practice of the astronomy of his age. This is an epoch in Martin’s career. In the workshop-study of Regiomontanus is laid the foundation of his after-notoriety.

But the cultivation of science is, alas! not so lucrative as the sale of English and Flemish cloths, which has served hitherto to replenish the family-exchequer; and the fortunes of Martin require that he shall devote himself to the bread-and-butter sciences. To prosecute this not so noble but more needful vocation, he betakes himself to the preëminently commercial kingdom of Portugal. Here he at once achieves distinction as the pupil of Regiomontanus, a mathematician himself of no mean skill, and in course of time he holds rank second to none among the promoters of geographical investigation. Let us see how he attains it. All maritime Europe (Venice alone excepted) was anxious, at the time when Martin betook himself to Portugal, to discover a pathway by sea to the East Indies. For a period of about sixty years Portugal had been conspicuously active in her efforts in this direction. The general method of her discoverers had been to attempt the circumnavigation of Africa. Progress, however, was slow, and we may, perhaps, not unfairly conclude, from the facts in the case, that they were not altogether unprepared to try some other more promising plan. We reach this conclusion from a very

interesting piece of history already alluded to. It was as follows: In 1474, the Canon Fernando Martinez, under instructions from his majesty Alphonzo the Fifth (then sovereign of Portugal), addressed a letter to the too little celebrated Italian philosopher Toscanelli, to ascertain his views in regard to a seaward passage to the Indies. Under date Florence, June 25, 1474, Toscanelli writes, "Although I have frequently discussed the advantages which this course" (of sailing westward) "must of necessity present, yet, inasmuch as his majesty expressly requests it, I will again enter into a detailed explanation of it." He then refers to an inclosed chart, whereon he has indicated the proposed course and marked the islands (many of them, doubtless, Marco Polo's imaginary ones) at which the voyager can conveniently land. In a letter addressed at the same time to Columbus, and referring to the plan which he has proposed to King Alphonso, he observes that it is far less difficult than is usually supposed. "On the contrary," he urges, "the chart inclosed demonstrates that the transit from the west coast of Europe to the Indies can be successfully accomplished by the course which I have indicated." Toscanelli was, of course, right, if we substitute America for Cathay, and the West for the East Indies.

To carry out, however, the plan which he had thus suggested to the somewhat discouraged Portuguese, something more than a clearly-drawn and accurate chart was required. The navigator who should follow the sailing directions of Toscanelli must be possessed of some trustworthy means of ascertaining his position at sea. True, the considerate philosopher had indicated on his chart certain insular resting places where the voyager, if distrustful of the accuracy of his instruments, could, like Vasco de Gama, land, and, under pretext of taking water, take also the sun; but who could fix with any degree of certainty the distances of those islands one from another,—nay, worse

than this, who could even give solid assurance of their bare existence?

As far, indeed, as the Azores and Madeira, a distance of about 1,500 miles, the course was not unfamiliar to the Portuguese ship-masters. On the contrary, a commerce of no inconsiderable magnitude was constantly being carried on between these islands and the mother country. As early as 1419 the vine had been transplanted from Cypress to the islands of Porto Santo and Madeira. In 1449, Prince Henry of Portugal had conducted a colony of Flemings to the Azores. In 1450, forty-two years before the sailing of Columbus from Palos, we find Terceira, one of the group, under the control of a Flemish hereditary governor, while sixteen years later a further accession of Flemish colonists established themselves in the Azores. Thus far, then, the course suggested by Toscanelli was quite familiar to European navigators. But beyond these islands, no unwary mariner, save the long-forgotten Icelandic navigators, had as yet allowed himself to venture. And even in executing the passage to them, the voyager, doubtless, had frequent experience of the unreliability of his instruments, and was led to yearn for some measurer of altitudes that should, more successfully than that which he employed, catch the vagabond stars, and give results equally correct in a stormy or a tranquil sea.

The Portuguese navigators, though discouraged by ill success, were not disposed to abandon their own and their forefathers' plan of reaching India by hugging the coast of Africa, and to adopt Toscanelli's bold suggestion of venturing upon unknown waters, *unless they were first put in possession of some trustworthy means of determining their whereabouts*. To attain this practical object, and thus facilitate the discovery of the seaward passage to India, John the First of Portugal organized a royal commission, composed of the ablest mathematicians and geographers in his kingdom. Of this associa-

tion, the most conspicuous and efficient member was our worthy friend, Martin Behaim. Not in vain had he watched the processes by which the grand master Regiomontanus, in the workshop at Nuremberg, sought to attain superior accuracy in his instruments. Although probably in use among the Arabian seafarers who had, as I have suggested, made their adventurous way from the ports of Western Europe, or of Northern Africa, to the Azores, and although, as appears from the testimony of Raimund Lullius, one of the instruments used by Castilian navigators in 1295, nevertheless the famous astrolabe seems to have been entirely forgotten or to have been designedly laid aside. Explain it as we may, the fact of its disuse appears well-nigh indisputable; for Barros, in giving the account, already quoted, of Vasco de Gama's experience, prefaces what he has to say by observing that the Portuguese had only a short time before the date of De Gama's voyage availed themselves of the use of the astrolabe for the purposes of navigation. Now, the royal association of mathematicians, of which Behaim seems to have been not alone a prominent member, but the *factotum*, is credited, by all who have written on the subject, with having introduced this instrument to the notice of the Portuguese.

What the influence of this event upon maritime discovery was, is strikingly suggested by a singular historical coincidence.

From the extant letters of Toscanelli to Columbus, bearing date 1474, it is clear that as early as that date Columbus was thinking of putting the theory of Toscanelli to a practical test. But no proposition is made by Columbus to carry out his desire and try the unknown deep until about 1483. When we bear in mind the profound anxiety felt throughout maritime Europe, and particularly in Spain and Portugal, about the seaward passage to India, the delay of Columbus appears very extraordinary. The question forces itself upon us, why did Columbus, knowing that

every commercial nation of the day was putting forth its utmost effort to secure the benefits expected from the discovery of the seaward passage, postpone for about ten years informing the Portuguese sovereign that he was prepared to carry out Toscanelli's views?

It certainly appears not very unreasonable to conjecture that Columbus did not, up to the date of 1483, feel himself fully prepared to do this. And, furthermore, it does not appear very unreasonable, but the reverse, to conjecture that the thing which induced him to make his proposition at all was that Martin Behaim and his colleagues put into his possession a means of ascertaining a vessel's position at sea, which hitherto was unknown to him. About 1483, probably as early as 1481, the royal commission was organized; in 1483 Columbus offers to undertake his voyage. The coincidence is not devoid of significance.

It strongly suggests that, indirectly, our Martin exercised no inconsiderable influence in bringing about the discovery of America, and otherwise furthering nautical investigation.

This conclusion receives corroboration from the fact that Vespucci, a companion of Columbus, has left it on record that he owed it to the astrolabe that he had been able to direct his course upon the ocean. If the friend of Columbus employed the instrument, we are not altogether unwarranted in concluding that Columbus himself was not unacquainted with its value.

We are in the habit of glorifying the heroism of the navigators who have ventured upon the untried waters in search of unknown lands. Columbus, Vasco de Gama, Cabot, Magellan are all heroes of nautical and geographical history. It is well! Yet, perhaps, there are other some who should have their meed of glory. Small is the justice done to the quiet, thoughtful men of science, like Toscanelli, Regiomontanus, and Behaim, whose labors actually rendered possible the achievements of the heroes

aforesaid, and stripped their voyages of almost everything resembling extraordinary hazard ; who distinctly projected the mariner's course for him, upon charts (with some imaginary items of geographical science, it must be confessed, but still, in the main, with remarkable truth) ; and whose instruments and almanacs, the results of patient labor and profound calculation, enabled him to follow the indicated course with undeviating accuracy.

It should furthermore be remembered, in awarding the meed of merit, that the men of science wrought with nobler aim than did the men of the sea. Mediæval voyages of discovery were eminently speculative in their character. Every mariner expected to reach the Indies. His vessel should plough the waters which rolled upon golden shores ; pearls and gems should freight his returning craft ; and, more than this, annual tribute of all the treasures of Eastern luxury should make his revenue more than princely. Columbus, with inflexible tenacity, insisted that he should be viceroy of all lands discovered by him, and should have a large proportion of the profits of every species of traffic that should be carried on between those lands and Portugal. Magellan made similar judicious stipulations. Verily was there somewhat of the sublunary and the carnal in the heroism of these ancient mariners.

All glory, say we, to those men, who, if they were not actually engaged in the work of discovery, yet made it possible for others of inferior ability to accomplish that work ; who resemble the artist, when, having detected in the shapeless stone a form of life and beauty, he leaves it to a rude artisan to develop what his dull thought could not possibly have devised.

ACTUAL DISCOVERIES.

The question naturally occurs whether Martin, having thus rendered signal aid to the geographical researches of

others, ever *directly* engaged in the work of discovery. He did. Circumstantial evidence, of a very strong character, leads to the belief that he was actually the discoverer of the straits called after Magellan. The facts in the case are these: Herrera, a celebrated Spanish historian of the sixteenth century, narrates that when Magellan made application to the Spaniards for means to carry out his plan of reaching India by sailing westward, he asserted that he felt confident of finding a strait which would conduct him through the newly discovered continent of America, and thus to the pearly shores of India and Cathay. The alleged ground of his confidence was that he had seen such a strait depicted upon a chart made by the distinguished navigator Martin Behaim. Herrera wrote in 1596, only seventy-five years after the return of the surviving companions of Magellan, so that it is not at all unlikely that he may have derived his information directly from some one who took part in the expedition. What, however, so augments the probability of Martin Behaim's having discovered the strait as to render it a moral certainty, is the statement of Pigafetta. Pigafetta, it will be remembered, was a nobleman of Vicenza, who accompanied Magellan and kept a diary of the adventures of the expedition. This composition is unfortunately, as the sailors would say, gone to Davy Jones's locker.

In response, however, to a request from Pope Clement VII, Pigafetta prepared a brief narrative of the expedition, and this still tells its tale. It is preserved in MS. in the Ambrosian Library at Milan. Now, what light does Pigafetta throw upon the question under discussion?

Under date October 21st, 1520, he writes: "We discovered a strait to which we gave the name of the Eleven Thousand Virgins, to whom that day was sacred. This strait is 110 miles long; and sometimes more, sometimes less, than half a mile wide. It opens into another sea which we named the 'Still.' But for the knowledge of

our leader we certainly should have found no outlet to this strait, for we all believed that at the other end it was closed. Our commander, however, knew that he could steer through by following a channel of considerable intricacy, which channel he had seen represented upon a chart that is preserved in the royal treasury of Portugal, and constructed by the celebrated Martin Behaim."

Additional confirmation is given to the idea that our hero was the discoverer of the strait in question, by the fact that for a considerable period it actually bore his name.

In 1561, just forty years after the return of the relics of Magellan's expedition, William Postel, a writer of so much character as to have been expelled from the order of the Jesuits, and to have been persecuted by the Inquisition, wrote a compendium of geographical instruction. Therein he informs his readers that the New World is continuous from pole to pole, save where it is severed at the fifty-fifth degree beyond the equator by *the strait of Martin Behaim*.

Taking all the evidence into consideration, it would seem that the facts in the case not simply allow, but compel, us to regard Martin as the original discoverer of the strait.

In another and even more important field, Martin Behaim contributed, by personal exertion, to the advancement of geographical investigation. It has already been suggested that of the two proposed plans for reaching India by sea, that by sailing perpetually westward and that by circumnavigating Africa, the Portuguese were specially enamored of the latter. Their preference had strong ground of support. It was matter of history that Phœnician navigators, in the service of Pharaoh Necho, had performed the feat. To those accustomed to ocean-telegraphs and steam-freights it may not be uninteresting to note the style of navigation indulged in by these ancient men of the sea. Herodotus says they

sailed out of the Red Sea and pursued a southerly course. At the close of the year they landed, cultivated a suitable portion of ground, waited for the harvest, gathered the fruits of their agricultural efforts, and proceeded on their way. At the end of four years they passed through the Pillars of Hercules, and so through the Mediterranean Sea back to Egypt once more. It was, therefore, matter of fact that the circumnavigation of the African continent could be accomplished.

Owing, however, to want of skill or courage, or perhaps to want of sufficiently reliable instruments of observation, the progress made by the Portuguese was exceedingly slow. Perseverance, nevertheless, was not deficient. Successive expeditions were sent out, with instructions to explore the western coast of the continent as far as possible. The possibilities in the case were usually very limited, until, in 1441, a novel impulse was given to the exploring energy of the Portuguese. In that year Tristano Nano proceeded as far south as Cabo Branco. His fame, however, does not rest altogether upon this achievement. He added to his nautical reputation the somewhat questionable distinction of having been the first to bring marketable negroes into Portugal. This invoice appears to have stimulated the spirit of geographical enterprise not a little. The dusky cargo of Tristano was the first-fruits of a goodly harvest, in whose yield our noble mariners and self-denying discoverers would fain participate.

Accordingly, other navigators are employed, and other expeditions deplete the royal treasury, and occasion disloyal sentiments to be felt, if not uttered, respecting the methods adopted to replenish the national exchequer. The work goes on; Cadarnosto reaches the mouth of the Rio Grande. Prince Henry, surnamed the Navigator, from his large capacity for spending money in the prosecution of geographical enterprise, ceases to voyage upon the tempestuous sea of mortal existence, yet the ardor

for nautical adventure is unquenched. The work has its reward.

Already, in 1469, after a lapse of only thirty years, a lucrative trade has been established in negro slaves and other indigenous products, more or less valuable. Fortunate Portuguese! The national conscience is endowed with elasticity proportioned to the expansion of the national exchequer.

The profits accruing are so considerable that Alphonso, the Most Christian King of Portugal, farms out the darksome traffic to Fernando Gomez, and, in addition to pecuniary tribute, exacts as a condition of the monopoly that the said Gomez shall carry on explorations every year 100 leagues farther down the African coast. Fernando is faithful to his engagement, and becomes an illustrious contributor to geographical science. His expedition crosses the line and brings back important information, most encouraging to future explorers. He has ascertained that the heat experienced in equatorial regions is not sufficient to ignite ships like so much tinder, and that specimens of the Caucasian race are not at once transmuted by it into negroes.

The removal of these apprehensions, which had, perhaps, deterred preceding adventurers from proceeding so far to the southward, deserves honorable mention among contributions to practical science; and we are at a loss which to commend more highly, the sagacity of Alphonso who stipulated that 100 leagues of progress in the circumnavigation of Africa should yearly be made, or the honesty, and, withal, courage, of Gomez, who adhered to his bargain, and carried out the stipulation. However we decide this point, the fact remains that the experience of Gomez greatly emboldened future navigators.

Not alone by his correction of geographical errors, and the removal of unfounded nautical fears, however, did Gomez contribute to the advancement of truth. That

meritorious captain had experience which falls not, alas! to the lot of every man; viz., that virtue brings its own reward. In the regions of heat, whither he ventured in fulfilment of his bargain with Alphonso, he found gold-dust and ivory. These alone might have proved no contemptible amelioration of the hardships which his integrity had led him to encounter; but they were not the only mitigation of his perils. The incorruptible Gomez found negroes, also; and, with the same intensely conscientious desire for their conversion to Christianity which stimulated the worthy forefathers of New England to wage war upon the Indians and enslave them, mingled, perhaps, with a vague impression that they had a certain market-value, the Portuguese navigators, for the greater glory of God, and the salvation of the souls of the negroes, possessed themselves of a cargo of their bodies.

Gomez had done a good work. Whether the glory of God was particularly advanced, or the souls of the dusky savages specially advantaged by the corporal toil to which they were subjected, it is not the time now to inquire.

Certain it is that the valuable returns, secured by Gomez in his progress down the African coast, must have had an effect, upon the work of exploration, of a highly stimulating nature. Fears were dispelled; bright, not to say dazzling, expectations were created by his very successful voyage as far as Cape Santa Catharina, a few degrees below the equator.

The Portuguese are encouraged to prosecute the effort to circumnavigate Africa, rather than attempt the plan suggested by Toscanelli, and now proposed afresh by Columbus. Accordingly, in 1484, 1485, 1486, two expeditions appear to have been sent out, under command of Diogo Cano, but under the scientific direction of Martin Behaim, who held the position of astronomer and cosmographer to the expedition. Under Martin's guidance, decided progress is made. The achievements

of Gomez himself are surpassed ; the equator and Santa Catharina are left far to the north, and on the first voyage the eighth degree of south latitude is reached ; on the second, the twenty-second degree. In other words, the voyagers proceed about 1,500 miles further than their predecessors. In token of the success thus attained, a pillar of stone is erected upon the shore, bearing upon it the royal arms of Portugal. On his return to Portugal, in 1486, Behaim is treated with marked distinction. He is made Knight of the Order of Christ, the king himself girds on his sword, the crown prince buckles on his spur.

And there was justice in this. Progress of the most important kind had been made. These two voyages of Behaim and his companion were grand steps in the solution of the grand commercial and geographical problem occupying the attention of European savans and statesmen.

In making this statement we are justified by historic fact. The voyage of Bartholomew Diaz, which resulted in the discovery of the Cape of Good Hope, was evidently suggested by the success achieved by Diogo and Behaim. Bartholomew Diaz is despatched, without loss of time, immediately upon the return of the former expedition. He follows so closely in their wake, that he takes with him, as guides, some negroes whom Behaim and his companion had carried home to be christianized. Not unfairly, then, may we assign to Behaim a conspicuous position among those who carried forward, through personal energy and hardship, the work of exploration in the fifteenth century. It is to be considered that what he accomplished so bore upon the final triumph of Vasco de Gama as to be justly entitled the beginning of the end.

And when we recollect that the end in question was the resolution of a geographical problem which, in an unparalleled manner, has influenced the destinies of the world ; when we reflect that the final consequences of the resolu-

tion of that problem were the temporary transfer of the East India trade to Portugal ; the final destruction of the monopoly long enjoyed by Venice, and the opening of Oriental traffic to the competition of all maritime Europe ; the removal of the seat of commercial and political power from the shores of the Méditerranæan to the Atlantic coasts ; the enrichment of Holland and England ; the investing of these Teutonic nations with naval and commercial supremacy and political predominance ; the development of the ideas of political and intellectual freedom which conspicuously belong to those nations ;—when we bear all this in mind, then, I say, as Anglo-Saxons, as determined enemies of monopoly in thought or in merchandise alike, as strenuous upholders of systems which afford an opportunity to every man's enterprise, we shall feel abundantly willing to render honor to one who prominently shared in bringing about the magnificent result alluded to.

As a geographer, then, who by his globe gives us accurate information as to the state of geographical science in 1492 ; as one who, indirectly and directly, exerted no inconsiderable influence in advancing that science, I invite you this evening to do honor to Martin Behaim, of Nuremberg.

VIII

REPORT OF THE RECEPTION TENDERED BY THE AMERICAN GEOGRAPHICAL SOCIETY TO HENRY M. STANLEY, Esq., ON HIS RETURN FROM CENTRAL AFRICA, AT THE LARGE HALL OF THE COOPER INSTITUTE, ON THE EVENING OF NOVEMBER 26TH, 1872.

ADDRESS OF CHIEF-JUSTICE CHARLES P. DALY, THE PRESIDENT.

LADIES AND GENTLEMEN,—I am sorry to begin the evening by announcing a disappointment, and I shall have to give it to you in the writer's words. It is a letter just received this moment from Mr. Stanley:

FIFTH AVENUE HOTEL,
TUESDAY, *Nov. 27th*, 1872. }

MY DEAR SIR,—It is with the utmost reluctance that I have to inform you that, owing to sudden and severe illness, consequent upon the fatigue attending meetings since my arrival, I am quite unable to have the honor of meeting the members of the Geographical Society to-night.

I need hardly say how deeply I regret being unable to attend, and how deeply sensible I am of the honor your Society has done me.

Owing to the excessive strain of the last few days my physician has absolutely insisted upon an interval of rest to-night, but I trust that your Society will give me another opportunity of meeting them and their friends.

I have the honor to remain, dear sir,

Yours, very truly,

HENRY M. STANLEY.

To Hon. C. P. DALY, etc., etc.

I know how great the disappointment will be, but you will, no doubt, excuse it, when you know Mr. Stanley suffered twenty-three attacks of the malarial fever of Africa in his expedition for the discovery of Livingstone, and that he should be suddenly rendered unable, by this attack of illness, to be present with us this night, is a matter which, I think, you will excuse. We propose, therefore, to go on with the ordinary exercises of the meeting, that you may not be disappointed, having come out on this inclement night. Ladies and gentlemen, it will, in some degree, compensate for the absence of Mr. Stanley when I inform you that in the course of the evening we will introduce to you the respected brother of Dr. Livingstone. His presence will, in some degree, compensate for the absence of the deliverer of the great traveller. The circumstance which we are met to-night to mark our appreciation of will hereafter be regarded as one of the most romantic incidents of geographical discovery, —I mean the sending-out of an expedition to search for the greatest of all African travellers, through the munificent liberality of a private individual, and the success of it, through the capacity and perseverance of the gentleman we hoped to welcome here to-night. During the last quarter of a century more has been done to explore and open up the great continent of Africa than had occurred during the same period in the past history of the world. No person has done so much in that great work as Dr. Livingstone. His explorations, in 1849, on Lake Nagami and the country surrounding it; his discovery, in 1851, of the stream flowing to the eastward, and which was afterwards found to be the Zambesi, and his following it up by the still more important discovery of the great network of water in the interior plains of Central Africa flowing eastward and westward; his great journey northwest, I think in 1854, to St. Paul's, on the western coast, until he came to the shores of the Indian Ocean; his explorations of the eastern coast, in 1858, and six years fol-

lowing ; and, finally, the extent, interest, and value of his explorations in the vicinity of the equator, constitute, in the aggregate of exploration and discovery, a most wonderful history, and place him at the head of all African travellers. Before his time Central Africa was a blank on the map, as it is so still south of the equator, except in regard to those regions that he has brought to the knowledge of mankind and the world. We feel a deep interest in such a man after twenty years' exploration of the great continent. After six years had transpired from the commencement of his last journey, and several years having elapsed without anything being heard from him, and doubts having been expressed as to whether he was living, it was greatly to the honor of Mr. James Gordon Bennett, who, single-handed and alone, had organized an expedition to search for him, to ascertain his fate, and to rescue him, if alive. How Dr. Livingstone himself appreciated that expedition, the act of Mr. Bennett, and the services that were rendered by Mr. Stanley in the execution of it, he has informed us, by a letter written in Unyanyembe, after Mr. Stanley's return. It will be remembered, ladies and gentlemen, that Mr. Stanley, I think, parted with Dr. Livingstone on the 14th of March last, and in the succeeding July, four months afterwards, and while Mr. Stanley was in London, Dr. Livingstone sent a letter from Unyanyembe to his daughter, which was published in the *London Times* of the 23d of last month, the concluding portion of which I will take the liberty of reading. After telling her that he has entrusted his journal to Mr. Stanley, he adds : "He has proved himself a good Samaritan to me in my sore distress, and I felt, and I still feel, truly grateful. I have written two letters to the *New York Herald*. I meant to keep most of my matter for publication myself ; but the very great expense which Mr. Bennett went to in sending Mr. Stanley induced me frankly to give him what would enable him to write a book. It will in his hands do no harm, because

the Americans are good and generous friends." When it is remembered, ladies and gentlemen, the peril that the traveller undergoes, the value that he attaches to his writings, and the pecuniary benefits that follow their publication,—I say, when all this is considered, you will appreciate the magnificent liberality of this heroic traveller. I may say, ladies and gentlemen, in respect to his deliverer, that Mr. Stanley, had he lived in the middle ages, his gallant exploit and deliverance of a Christian gentleman in a Pagan land would have found their way into some ballad, and he would have descended to posterity as one of the heroes of romance. In this age he meets the fate of many travellers. He has come back with something new and unprecedented to relate. I say unprecedented, because a large number of gentlemen had made up their mind that Livingstone was dead, and it is a delicate thing to disturb the pride of those who had formed their opinions or deprive them of the value of their judgments. I might add that Mr. Stanley was not a scientific man; he was not a geographer, not a member of the Geographical Society; I assume this, because he told me he had never heard of the American Geographical Society until he heard of it in the wilds of Africa from Livingstone himself. After adverting to the fact that the researches of Mr. Stanley in Abyssinia and Africa had confirmed the statements of Bruce and other travellers, Judge Daly observed, that it gave him great satisfaction to state that if the Royal Geographical Society of London were anticipated in the worthy work of finding Dr. Livingstone by the greater promptitude of Mr. Bennett, and the marvellous energy of Mr. Stanley, there would be no cause of exclusive triumph here, or of complaint abroad, for Mr. Bennett was a member of their society, and the Royal Geographical Society must, in common with them, rejoice that the heroic old traveller had been found. A year before Mr. Stanley found Dr. Livingstone—while he was engaged in his act of exploration, while he

was pursuing that great network of waters which he supposes to have connection with the source of the Nile, and while he was reposing on the banks of one of those great rivers which he alone has seen—out of the fragments of an old check-book in his possession he sat down and wrote a letter to a Mr. W. S. Stearns, then a merchant of Bombay, and his personal friend, giving an account of his explorations up to that period, and he requested Mr. Stearns to furnish the information to our Society, and was pleased to say that we had always honored him, and that he attached value to our good opinion. In connection with which I may state that I believe the first letter he ever sent, or certainly one of the first, in respect to his explorations in Africa as missionary and traveller, was a letter sent, in 1851, to this Society, and which is published in the first volume of its Transactions. We have the pleasure to-night, as I have said before, of the presence of his brother, and the happy incident of the appearance also of Mr. Stearns, of Bombay, the gentleman to whom that letter was addressed; the one a relative, the other a personal friend, of the distinguished traveller; and I have asked Mr. Stearns, for our gratification as well as for yours, to appear before us this evening and read the letter himself. After that has been done, I will take occasion to call, in an impromptu manner, upon two or three of the gentlemen of the Society present to make up the evening by a few remarks, in the absence of Mr. Stanley, hoping that you will be charitable under the circumstances, and with that we will close the business of the evening. It affords me great pleasure, therefore, to introduce to you Mr. W. S. Stearns.

SPEECH OF WILLIAM S. STEARNS.

LADIES AND GENTLEMEN,—I have been requested to read to you, this evening, a letter which lies before me, and also to make a few remarks upon my connection and acquaintance with Dr. Livingstone. I do not propose to

occupy your time with any lengthy remarks, but simply to state to you that in 1864 Dr. Livingstone was as much a myth to me as he is to you to-day. You have heard of him; some of you, perhaps, have seen him. Many of you never have seen him, and, perhaps, never will see him. But in 1864, the latter part of it, I first became interested in him. In 1865, in June of that year, Dr. Livingstone arrived in Bombay, in the little steamer "Lady Nyarson," which had been sent out, in sections, from England to assist in the exploration of the lakes in the interior of Africa. After performing this work the steamer was sent to Zanzibar for sale. It was afterward thought advisable to bring the vessel to Bombay, and so it came about that on the 6th of June, 1865, the little steamer "Lady Nyarson," scarcely ninety feet in length, sailed into Bombay harbor, under the command and under the guidance of the engineer-in-chief, Dr. Livingstone, the only other men on board being a stoker and a carpenter, with a crew made up of several coolie boys. The same indomitable energy and courage that had enabled him to explore the interior of Africa had guided him, under God and Providence, over a wide waste of 500 miles. In 1865 I found myself in the steamer "Peonellies," and among those present, of our fellow-passengers, was Dr. Livingstone. I made his acquaintance, and formed a friendship which I shall never forget as long as I breathe the breath of life that is in me. On our arrival in Bombay, and during his residence in Bombay, I had the pleasure of offering him a place under my roof. He remained in Bombay about four months, and then early in January, in 1866, he started for Zanzibar and the mouth of the Ruanago River. I will not attempt any personal description of the Doctor, because I am glad to say that his duplicate (pointing to Mr. John Livingstone, who occupied a seat by the side of the chairman) is sitting here. I am also glad to state, for your information and satisfaction, that in a letter which was sent me early last year circum-

stances known only to myself and Dr. Livingstone were referred to, which stamped them as genuine, and as beyond the faintest shadow of a doubt. There are a great many who ask this question. I have heard it many times. It has been put to me a great many times, and there are those here who have, doubtless, heard the same. What purpose is all this waste? Why bury himself in this dark region of Africa? Why refuse to return again to the civilization he has left? It is the same question of old—the question that was put in the days of the Saviour by Judas. We are living examples of what has been brought about by this so-called waste. A question, almost identically the same with this, was asked by the ancient Britons. Dr. Livingstone has done a great and noble work, a work in which he should have every sympathy and every prayer that could be given him. He is opening up a country not only to our knowledge, not only to you, who are interested in geographical progress and geographical discovery, but open, also, to Christian civilization.

The two nations, too, are going hand-in-hand with him in a burning desire to bring the terrible traffic in slavery to an end. Many and many a time have I heard him, with burning lips and flashing eyes, tell the story of the wrongs and frightful cruelties which he had seen enacted under his eyes, and the destruction that had been brought about in that country by the connivance of the Portuguese authorities. By the same means, village after village has been laid waste, and thousands upon thousands of people destroyed. I am glad to see that the English government, and that England, has taken this matter vigorously in hand, and I hope that this land of freedom will assist in this great and noble work, and in exterminating this last great vestige of slavery.

Mr. Stearns then read the following letter :—

NEW YORK, *Sept.* 23d, 1872.

HON. CHARLES P. DALY,

President American Geographical Society.

DEAR SIR,—I have much pleasure in handing you the following extracts from a letter received, through Henry M. Stanley, Esq., the indomitable agent of the *Herald*, from Dr. Livingstone. The Doctor has requested me to furnish you with such extracts as I may think proper to give.

The letter in question was written in Manyema country, in November, 1870. In a late letter, dated Unyanyembe, March 13th, 1872, he says:

"The inclosure was penned long ago, among cannibals, where I had no paper. I give you an idea of matters there; but my own knowledge has been increasing, and perhaps the inclosed statements do not tally exactly with what I have to say now, and much of which will be published in my despatches."

The following portions are those to which he seems to refer in his request:

LETTER TO MR. STEARNS.

MANYEMA COUNTRY, CENTRAL AFRICA, {
November, 1870. }

MY DEAR STEARNS,—I have not a scrap of paper, and there are no stores to buy any within a round 1,000 miles, so I cut a leaf out of my Bombay check-book, to offer thanks for all your kind services, and give you a little information about the work that has detained me so long. When I left in 1866, to examine the watershed of South Central Africa, I thought that I could easily do that, though it involved the solution of the problem of the sources of the Nile, in about two years, and then begin a benevolent mission on the slope back to the sea. This last is greatly needed; for our fine, promising mission, begun by good Bishop Mackenzie, has dwindled into the missionary bishop of Central Africa, dawdling at Zanzibar, and taking a peep at his diocese on the main-land, some forty miles off, with a telescope, then becoming sick and going to the Seychelles Islands to recover. He seems to act on Bunyan's (*sic*) principle—

"He that fights and runs away
May live to fight another day."

He blames me for his dawdling ; says he was connected with my expedition on the Zambesi, and when I left he had to follow. It must be failure of memory, for he never was connected with me on the expedition in any way whatever. Make me the Bishop of Central Africa, and see how long the fear of death would keep me out of my diocese.

The watershed is in latitude 10° 12' south. Here stand "Ptolemy's Mountains of the Moon," of no great height, however, between 6,000 and 7,000 feet above the level of the sea, and never clad with snow, at least since the last glacial epoch. And here also the springs of the Nile do unquestionably arise.

The length of the watershed from west to east is between 700 and 800 miles. The springs are innumerable, but all flow away to the north by three lines of drainage ; and these which we may call the head-waters of the rivers of Egypt are lakes, with the currents and forms of rivers. If not too pedantic, they are lacustrine rivers. Tanganyika is one, and from twenty to thirty miles broad. I write on the banks of the central one, called Webb's Lualaba, at first eight or ten miles broad, and then holding a width of from two to six miles, as far as it is known. It was long ere I gained a clear idea of the drainage. I had to feel my way, and every step of the way, and was generally groping in the dark, for who cared where the rivers ran ? The Portuguese made two or three slaving visits to Cazembee ; but they inquired for slaves and ivory alone, and heard of nothing else. Had I left at the end of two years, I could have told little more of this country of dense forests and running rills than they did. I inquired about the waters till I was ashamed, and almost feared that I should be set down as afflicted with hydrocephalus. Many a weary foot I trod ere light shone on the ancient problem. Had I known all the hunger, hardships, toil, and time involved, I might have preferred a straight waistcoat to undertaking the task ; but when I had engaged to do it, I could not bear the thought of being beat by difficulties, and I stuck to it with bulldog tenacity.

Native wars were a great hindrance. Illness and medicine lost caused serious delays ; unsuitable, cowardly attendants an intolerable drag. By mistaken kindness my liberated slaves were not forced to work, and learn as you and I were. They had all been

slaves, and of the criminal class, in their own country, and feared nothing so much as being caught and made to work again. Some deserted six times over. I look with great anxiety to your freedmen, but they were never of the criminal class in America. I am reduced to inactivity by these worthies, some of whom became eager slave-hunters of their own countrymen when, from fear of guns, there was no danger to them.

I could finish all that remains of the exploration in four or five months if I had men and a canoe. It is the western drainage alone that detains me for work. West of this there are two large rivers, each called Lualaba. These unite and form a large lake, which I am fain to call Lake Lincoln, in honor of him who, by passing the amendment to the United States Constitution, gave freedom to 4,000,000 of slaves. Looking south from this Lake Lincoln, we have a remarkable mound or hill on the watershed that gives out four full-grown, gushing fountains, each of which becomes a large river. One fountain on its south is broad enough for a man not to be seen on the other side. This is the source of the Liambai, or Upper Zambesi. A smaller one on the same side becomes Luerize, and far down Kafue, where it falls into the Zambesi. I wish to name the large fountain, the source of the Zambesi, after good Lord Palmerston, one on the northern side of the mound after Sir Bartle Frere. Lincoln, Palmerston, and Frere (in Scinde) have done more to abolish slavery and the slave-trade than any of their contemporaries. Lincoln and Palmerston are no longer among us; but in using the names of these great and good men I am fain to place, as it were, my poor little garland of love on their tombs.

Those remarkable fountains, not ten miles apart, are probably the fountains of the Nile mentioned to Herodotus by the secretary of Minerva, in the city of Sais, from which, he said, half the water flowed northward to Egypt and the other half to inner Ethiopia.

The Manyema country is covered largely with forests, from which even the fierce vertical sun is all but excluded. No trader can come here, so the tusks have lain rotting with the other bones where the animals fell. Hordes of half-castes now collect this ivory for a mere trifle. The Manyema are reputed to be cannibals, and had I believed a tenth of what was told by adja-

cent tribes, I might not have ventured among them. My mother never frightened me in infancy with "bogie," etc., so I am not liable to bogiophobia, to which awful disease everything horrible is credited if only imputed to the owner of a dark skin. It raged as an epidemic lately in Jamaica, and the mothers of the Jamaica planters have much to answer. * * * The Geographical Society of New York have always honored me. I need not say that I value their approbation highly. Will you give them extracts from this?

DAVID LIVINGSTONE.

P. S.—If you give extracts to the Geographical Society of New York, it may be right to add that I feel a little regret in being in a manner compelled to speak disparagingly of the opinions of my predecessors. But the claim of discovering the sources of the Nile was put forward so positively, and withal so honestly, that some explanation is necessary in making a similar claim. Poor Speke's great mistake was the pursuit of a foregone conclusion. When he discovered Okara, or Victoria Nyanza, he at once leaped to the conclusion that therein lay the sources of the river of Egypt. When he and Grant afterwards went to prove this conclusion to be correct, no sooner did they look toward Okara, than they turned their backs on the *Caput Nili*, the fountains being 500 miles further up the Great Nile valley than the most southern point of their lake. Three lakes, separated by wide spaces from each other, were run into one huge Victoria Nyanza. When they saw that the little river, the so-called White Nile, that comes out of it, would not account for the river of Egypt, but for devotion to the "foregone conclusion," they would have come west, here, into the trough of the Great Valley, and found this Lualaba, not eighty or ninety yards broad, like their little White Nile, but from 4,000 to 8,000 yards; and another, the united stream out of Lake Lincoln, of equally gigantic proportions.

A Dutch lady explorer awakens my sympathy more than Baker, who turned when 700 miles short of the sources, or the second Egyptian expedition that fell short of the same by 1,000 miles. She proceeded with such wise foresight for both land and water exploration, and nobly persevered up the stream in her steamer, in spite of the severest domestic affliction,—the loss of her two

aunts by fever,—and showed such indomitable pluck, that, had she not been assured, honestly enough, no doubt, by Speke and Grant, that they had already found in Okara the source she sought, she must inevitably, by boat or land, have reached the head-waters. I cannot conceive of her stopping short of Bangweolo Lake. We men say explanation was not becoming her sex. Well, considering that more than 1,600 years have elapsed since the ancient travellers or traders came in here, and emperors, kings, and philosophers all longed to know the fountains whence flowed the famous river, and longed in vain, explanation does not seem to have been very becoming the other sex either. She came further up than the centurions sent by Nero Cæsar. I know nothing more about her. Many and hearty thanks for your most kind services about the buffaloes. All came safe to Zanzibar, but were entrusted to an ill-conditioned wretch of a Persian, Arab, who literally killed them—drove them in a hot sun; then, on reaching a village, tied them up, allowing them neither to eat nor drink. Blood flowed from their nostrils, and they perished. This he wished. Tying them was to avoid all trouble in herding them. He was prepared, and got money to buy grass and water. It was like spending money to buy the light of heaven or the air we breathe. But at Zanzibar they did not know better. I have got no letters for years, save some three years old, at Ujiji, in March, 1868. I don't know my affairs, if I have salary or not. Lord Russell was to give me £500 a year, if I settled, and I don't look like settling anywhere or anything but the sources of the Nile. The expedition-money was for two years, and is all expended long ago. It is, therefore, not without anxious care that I strive to make a complete work of this exploration. * * *

I may say, before I close, that, had I known when writing this letter that I should have been called upon to read it before you this evening, I should have added a few words from another letter, brought me at the same time through Mr. Stanley, and which inclosed this letter which I have been reading, dated Unyanyembe, March 13th, 1872. In it he says: "This letter will be handed you by Henry M. Stanley, Esq., travelling correspondent of the *New York*

Herald, sent out by James Gordon Bennett, Jr., to aid your servant, and right nobly he has fulfilled his task."

MR. LIVINGSTONE INTRODUCED.

The Chairman said it now afforded him great pleasure to introduce to them Mr. John Livingstone, the brother of the great traveller.

SPEECH OF MR. LIVINGSTONE.

LADIES AND GENTLEMEN,—I am very sorry for the disappointment we have met with this evening in not having Mr. Stanley with us. A few minutes before I came here I saw him, and he was quite indisposed and unable to come out; in fact, his medical attendants forbade him to come here to-night, but he hopes before long to have the pleasure of meeting you all here.

THE BANQUET.

The Chairman said a number of the members of the Society would give a banquet to Mr. Stanley to-morrow (Wednesday), when, they hoped, he would be well enough to be present; but he could only say to those gentlemen who intended going to the banquet that they would proceed with it whether Mr. Stanley was there or not, as a good dinner was not a thing to be abandoned. As it had been impossible to reach all the gentlemen of the Society in the limited time which they had had to make their arrangements in, if there was any gentleman of the Society who desired to be present at the banquet and who had not been invited, he could leave his name with the Secretary. The evening papers had an important despatch with respect to Dr. Livingstone, and, being short, he would read it. It was headed "Another Search for Dr. Livingstone," and ran thus:

LONDON, *November 26th*, 1872.

A despatch from Cairo says the Khedive is about to send a force of 5,000 troops, under command of one of the American

officers now serving in the Egyptian army, to aid Dr. Livingstone, and search for the source of the River Nile.

He would now introduce Dr. Bellows, who would make a few remarks, and then the meeting would adjourn.

SPEECH BY DR. BELLOWES.

Dr. Bellows, who was received with considerable applause, said the only improvement which he could suggest to the chairman's remarks was that they should adjourn before listening to him. Still, as they seemed determined that evening to prove a remark which Timothy Titcomb had lately thrown before the public, that the Americans were the best-humored people in the world, he would like to take the opportunity of proving the truth of the observation by referring to the admirable attention which they had given on the occasion under such very exacting circumstances to a meeting made in honor of and to the honor of their absent guest, but which they had been kind enough to accept in so generous a spirit, when those who had been there to present Mr. Stanley to them were prevented at the last moment from carrying out their desire. He thought the admirable equanimity which had prevailed evidenced the carefulness with which they had preconceived the pain which was in their bosoms, and the patience with which they had listened to these addresses proved that they, as Americans, were the best-mannered people in the world. He had the pleasure of seeing Mr. Stanley, like the other gentlemen who had addressed them, and he assured them they did not know how much they had lost in not having had the chance of looking on the man who so recently stood face to face with Livingstone. They would see in him that resolution and that persistency which had carried him through that critical trial; they would see in his face that Abyssinia and Africa had left their marks on him in a very conspicuous manner, and they would then have understood with what determination and success he had carried out that

undertaking. He appreciated in the American people that "hero warmth" to which they were sometimes disparaged by stupid people, who did not like to see others who had done great things in this world recognized. He thought the enthusiasm which they were so willing to display on all such occasions, and for which they were sometimes reproached in the old country for receiving those whose works they had previously heard of, and that the ointment which they poured on their heads was creditable to the people, and it was better to be mistaken and overdo admiration and generosity towards strangers than it was with a coldness to be considering only what was to be done, and to take care they did not overpay them a cent. Great souls made great room for men that were supposed to have great souls, and if little souls came in at the door it did not make the place less splendid or the heart that received them less noble. Now, they all had a natural curiosity to see Mr. Stanley—they desired to take hold of the hand that last held that of the noble Livingstone, and they also wanted to honor the pluck that went after him and found him. It was not Africa that gave to Livingstone his importance; there was something better than the discovery of the source of the Nile, and that was the sense of devotion that lay within his soul. Livingstone was greater than the source of the Nile, and what he had done to assist humanity was in itself worthy of all his efforts in all that he could do. But there was another thing, which was worth reflecting upon. Perhaps there was no other country in the world where any one but a body of savans, or men of sense, or men who had made special investigation into such matters, would have come together and heard so much about the heart of Africa; but what was it in the American breast—that cosmopolitan nation, that nation made up of the kindred of every other nation and of every clime, that was made up by adoption from other countries, what was it that gave that breadth of sympathy to the Ameri-

can people? He rejoiced in the universality of the American people and in their desire to know what was going on wherever man was found. It was not of Asia, nor Europe, nor America; it was of the common soil of this common world, generally inhabited by the common image of God made out of the earth and blessed with His divine spirit, and man was held dearer here than in any place on the face of the world. Why was it that God kept that quarter of the world (Africa) shut up? He supposed it was for the same reason that Asia was so long shut up after it had once been opened; for the same reason that China and Corea were shut up. But these places would all have to be opened, and the gates of humanity and civilization could never be closed until the vast world and all its inhabitants were able to be con ned and understood by all those under the planets. Africa had still her great contribution to make to humanity; she was one of those great colonies who were to be kept in reserve, probably, and brought out at the last moment, like some general in reserve. It might be that Africa had contributions in her bosom to make for the general use of humanity; perhaps had connected with her history characteristics which in the end might prove essential to the rounding-out of that impartial form of humanity which had been represented in the civilization of the world hitherto. And if there was a place in the world that ought to have an interest in Africa, a place which had been the bone and sinew of the principal wealth to another country, and conceded at the same time the opportunity of doing the principal wrong ever committed against a most innocent set of conscripts, it was America. What were we going to do to show that we were not forgetful of these two or three millions of people of whom we had had the use, and whose lives had been the road to our wealth and to the wealth of this country? That was a question which he left them to consider.

STATE OF NEW YORK.

No. 169.

IN ASSEMBLY,

April 5, 1878.

TESTIMONY

OF THE COMMITTEE ON GRIEVANCES ON THE PETITION OF STEPHEN ENGLISH, IN THE MATTER OF THE INVESTIGATION OF THE MUTUAL LIFE INSURANCE COMPANY.

Committee met at Metropolitan Hotel, New York, April 4th 1878.

Present—Hons. O. W. Herrick, chairman, E. S. Whalen, Elbert Townsend, Frank Abbott, A. Blessing, T. J. Campbell.

J. Thomas Davis, Clerk.

Mr. O. T. Atwood appeared as counsel for committee.

The Clerk read as follows :

“Petition of Stephen English, of New York, asking for the investigation of certain affairs connected with the New York Mutual Life Insurance Company.

“To the honorable body the Assembly of the State of New York :

“Your petitioner humbly represents that he is suffering imprisonment for the faithful performance of a duty he owed himself and his fellow policy holders in the Mutual Life Insurance Company of New York.

“This company is the largest institution of the kind in the world ; its accumulated assets amount, at present, to over \$58,000,000. The writer is a public journalist, and being profoundly impressed with the beneficence of life insurance, has, for many years, exerted him-

self to the utmost of his ability to increase and spread its blessings; and, regarding the Mutual Life as a representative life company, availed himself of every opportunity to enhance its reputation and promote its prosperity. He was, with the general public, completely deceived by the specious and artful representations of the management, and proved himself its voluntary and zealous champion until his eyes were opened by reading the sworn testimony taken by the insurance superintendent and presented to the Legislature of 1872.

"He examined the evidence with astonishment, but could not resist its force, although it established the truth of the charges of corruption which had for seven or eight years been openly preferred against F. S. Winston, the president of the company.

"The subscriber, being editor and proprietor of the Insurance Journal, intended to serve as an instructor and guide in all matters relating to insurance, was bound in duty to its readers and his brother policy holders to denounce and to employ every legitimate means at his command to remove the evils of the existence of which he had received so clear and indisputable a proof. Upon further investigation, not only was the truth of this evidence corroborated, but additional facts were brought to light, which demonstrated that President Winston, in league with a clique composed of trustees and lawyers, was mal-appropriating the company's funds for the private aggrandizement of himself, his family and those in collusion with him. The petitioner being determined to act with perfect candor and fairness towards the officers of the Mutual Life Insurance, called promptly upon the vice-president (in the absence of the president on a tour in Syria, pending the Miller examination), and frankly informed Mr. McCurdy that he could no longer conscientiously support the present administration, and that he, McCurdy, was at liberty to withdraw his patronage from the Insurance Times, as the misconduct of the management would be freely criticised in that journal.

"The subscriber then proceeded to fulfill the obligation devolved upon him by his position, and from month to month demonstrated the necessity of effecting a complete change and thorough reform in the administration of the official department of the Mutual Life. He examined and sifted all the charges that had been publicly brought against Mr. Winston's conduct of the affairs of the company, and republished such as he found to be truthful and just.

"In these Mr. Winston is accused of violating the regulations, by-laws and charter of the company, in reviving surrendered and dead policies for the benefit of his family, his friends and others willing to conspire with agents, and share with them in the proceeds of such fraud upon the true policy holders; the procuring, in direct violation of the charter, from a suborned body of trustees, and the acceptance of large bonuses to himself and family, in addition to extravagant salaries, and the cloaking of this illegal transaction from the public by charging the expenditure under the head of dividends to policy holders; the illegal employment of the company's funds, by making loans thereof to trustees, agents and others, and the concealment of

such accommodations, by making no corresponding record in the books, and by putting such amounts down as 'premium receipts' or 'cash in the cashier's drawer;' the illegal and needless expenditure of vast sums of the company's money in various States, to procure the passage of partial and unjust acts of legislation, and falsely charging the outlay to office rent and taxes; the imposition on borrowers of unlawful and oppressive rates of interest, in addition to the legal rate and ordinary charges; the collecting, retaining and employment of so large a number of proxies, by himself and fellow officer, as enables him to elect such trustees as he thinks proper, and thus insure his perpetuity in office, and the assent of the elected to any measure he chooses to introduce.

"For these delinquencies, licenses and assumptions of arbitrary power, Mr. Winston had been arraigned at the bar of public opinion by some few of the trustees of the company, by several influential policy holders, who made the charges the subject of open discussion in public meetings in Boston, Baltimore and this city, and finally by the press, long before the petitioner's condemnatory strictures were published.

"Not only was he anticipated in bringing these accusations by the authorities here enumerated, but also by the accused himself, F. S. Winston, who published them all in the report of Superintendent Miller's examination, and had it copyrighted as well as printed in an incomplete and inaccurate form, at the expense of the policy holders. The subscriber has only collected these charges, and endeavored to render them of avail in promoting the purification and reform of the administration of the Mutual Life Insurance Company, to protect its policy holders from continued injustice and spoliation.

"The evidence thus adduced against the principal manager of this company has, however, been strengthened by fresh developments, which demonstrate the necessity of subjecting the affairs of this gigantic corporation to an investigation so searching, impartial and thorough, as to put the Legislature, the policy holders and the public in possession of the real facts bearing on the aforesaid charges.

"The petitioner respectfully represents that the commission that may be appointed to make the proposed investigation should be constituted of persons best calculated to render it complete and satisfactory to all parties interested. The important point should be borne in mind that the present managers of the Mutual Life Insurance Company, who have had entire control of its business for many years, have made it a close corporation, have pursued an artful system of falsifying the accounts, and being in the fiduciary possession of \$58,000,000, an annual income of \$17,000,000, besides the profits by usury and other illegal transactions, have been and are enabled to buy advocates and abettors in Legislatures, in State insurance departments, in courts and the press, so that the examination of the company hitherto made, and the suits against these officers hitherto brought, have been, by these means, rendered nugatory and abortive. The officers and trustees, by the profits of their connection with this company, with assets bordering on \$60,000,000, are amassing large fortunes, and are tenaciously eager to retain their grasp on the

savings of the insured. It is, therefore, imperatively necessary that the policy holders should be duly represented in such commission, in order that the prospective widows and orphans of 80,000 members may be shielded from further spoliation of the portion set by and maintained for them by conjugal and paternal love, solicitude and providence.

"NEW YORK, *March 15th*, 1873.

"STEPHEN ENGLISH.

"Mr. BEEBE moved that said petition be printed immediately, and referred to the Committee on Grievances, with instructions to investigate the subject mentioned in the petition.

"Committee—Messrs. Herrick, Whalen, White, Townsend, Blessing, Abbott, Campbell.

"By order of the Assembly.

"J. O'DONNELL, *Clerk.*"

On motion, adjourned to meet at Ludlow-street Jail to-morrow morning, at 10 o'clock, to take testimony of Stephen English.

April 5th, 1873.

Committee met at Ludlow-street Jail.

Present—Hons. C. W. Herrick, chairman; E. S. Whalen, E. Townsend, Frank Abbott, A. Blessing, T. J. Campbell.

Mr. Thomas Darlington appeared as counsel for Mr. Stephen English.

STEPHEN ENGLISH, being duly sworn, testified as follows: My name is Stephen English; I reside in New York city, at No. 53 West Twenty-fifth street; my business is editor and proprietor of Insurance Times; started my own paper in 1868, the Insurance Times; since that time it has been published until this time; know Frederick S. Winston; was recognized organ of Mutual Life Insurance Company up to March 4th, 1872; during Miller examinations, I was convinced of errors in the management of said company; prior to that time, Mr. Winston had endeavored to induce me to withdraw my opposition to Mr. Miller; I made about that time examinations of written testimony, taken before Mr. Miller, of Mutual Life Insurance Company; that written testimony was filed with Legislature March 1st, 1872.

Q. What were your motives in making the publications complained of by Mr. Winston as libelous? A. Protection of my own

interests as a policy holder and the interests of the policy holders generally, from mal-appropriation of the company funds by the president, vice-president and a certain clique of the trustees.

Q. Had you any personal animosity against Frederick S. Winston?
A. None whatever.

Q. Where was Mr. Winston at that time? A. He was somewhere abroad.

Q. When had you last seen Mr. Winston, and what were your personal relations with him at that time? A. I saw him last, January 17th, 1872, and shook hands with him when he left New York to go abroad.

(At this stage of proceedings reporters having appeared, Mr. Whalen moved to admit reporters and such others as committee think proper. Carried.)

Q. At that time, were your personal relations with him friendly?
A. Very friendly, and had been for years.

Q. Have you seen him from that time to the present? A. No.

Q. When was you arrested, in the suit in the Supreme Court of Frederick S. Winston? A. On the 28d day of January, 1873; prior to that time I had heard that orders of arrest had been obtained against me.

Q. Prior to this time had you been sued by George T. Hope?
A. I had, about two weeks before.

Q. On that had you been held to bail? A. I had, in the amount of \$10,000, with two sureties.

Q. Did Mr. Winston know of this? A. Winston knew this fact, as I am informed.

Q. Did you deposit securities to secure sureties? A. To secure my bail in that suit of Hope I deposited \$11,000 in registered bonds of United States ten-forties with Charles Stanton, one of my sureties.

Q. When you heard these two orders of arrest were against you, did you remain in this vicinity? A. I did; I was absent in Jersey City three days.

Q. When did you employ Mr. Darlington? A. About January 19th, 1873, to appear in said new actions, and moved to reduce the bail; I was informed by Mr. Darlington that such motion could not be made, because attorney for plaintiff denied that any suit had been commenced; I returned to the city and was arrested on January 23, 1873. (Counsel produced order of arrest, which was served

January 23, 1873.) My counsel informed me that it was obtained January 13th, when Mr. Winston made affidavit; it is dated January, 1873, in Supreme Court, for \$20,000.

(Counsel produced order of arrest from Superior Court, dated January 13, 1873, and alias order dated January 24, 1873, for \$20,000.)

Q. Did your counsel obtain order for examination of Mr. Winston?

A. On the 27th of January, my counsel obtained an order for examination of Frederick S. Winston; this order was obtained upon affidavit made by me on the 24th January, 1873, in which affidavit I state that I desired the examination for the purpose of enabling me to frame my answer, so that I might prove the facts and circumstances in justification of the said allegations, or in mitigation of damages; I further state, in that affidavit, that I expect to prove, by the examination of the plaintiff, the substantial truth of all the allegations published by me concerning Mr. Winston; I believe the truth contained in the Insurance Times of all the articles published therein, in regard to the Mutual Life Insurance Company; my only motive, in the publication of said articles, was for the public benefit and of policy holders; there has never been any personal difficulty between Mr. Winston and myself; in the attempts made by my counsel to procure the examination of Mr. Winston, they were made under my direction and with the sincere expectation that I could prove the truth of every allegation out of his own mouth, and thus avoid the long delay which must take place before the action could be regularly tried.

Q. Has it been your belief that Mr. Winston would submit to an examination as to the truth of the charges made against him? A. I have never believed that he would submit to a public examination; that on the contrary, he would discontinue the suit, because developments will arise that will astonish the world, that have never been brought to light.

Q. In making the charges, did you suppose that you were making new charges against him, or were they merely repetitions of charges heretofore made publicly against him by others? A. They were merely repetitions of charges that were made against him for years by others, and by public journals, and in legislative proceedings.

Q. Prior to the publication in the June, 1872, number of Insurance Times, which is the first publication complained of, had you not seen the same charges concerning the plaintiff published with his consent

and copyrighted by the Mutual Life Insurance Company? A. I had.

Q. In the comments made by you upon the admitted facts in that publication, were any unjust inferences made to your knowledge?

A. None whatever; I believe them to be just and reasonable.

Q. With what ultimate hope were they published? A. With the object of remedying the evils complained of, drawing the attention of the Legislature to the proxy system, and benefiting the general interests of the company.

Q. When was the mismanagement brought to your notice? A. Many years they had been discussed, but was not myself convinced of their truth until March, 1872, during Miller's examination.

By Mr. WHALEN:

Q. During the time you was advocating the interest of the Mutual Life Insurance Company and Mr. Winston, and up to March, 1872, did you ever receive, or did any one in your behalf, from said insurance company or Mr. Winston, or from any other person for said services, any pay or emoluments beyond what was your just dues for advertising or for the sale of your charts? A. Never one cent; on the contrary, in 1868, Mr. Winston endeavored to induce me to advocate the mutual system exclusively, and that they would give me a handsome income from any losses I might sustain from the withdrawal of patronage from other companies; at that time I understood that \$80,000 was raised by a certain class of companies to crush out other companies, meaning stock and other companies; in 1871, \$20,000 was raised by the Mutual Life and other companies for the purpose of passing Miller's life bill; the object of that bill was to crush out all the small life companies, and grant a monopoly to large companies; during the progress of that bill in the Legislature, Mr. Winston endeavored on several occasions to induce me to withdraw my opposition to that bill.

By Mr. ABBOTT:

Q. Did you, or any one in your behalf, ever apply or ask for any compensation besides your legitimate fees? A. Never.

Q. In your opposition to the Miller life bill, and your efforts to remove Mr. Miller from the insurance department, were they made at pecuniary benefit or expense to yourself? A. At a great sacrifice to myself; I lost by the withdrawal of patronage of one company alone twenty-three hundred dollars per annum permanently; I paid

all my own expenses and the traveling expenses of the witnesses to Albany, amounting to about \$2,000 (two thousand dollars).

Q. By whom do you expect to prove the charges contained in the petition and in your publications? A. By James W. McCulloh, Sheppard Homans, Frederick S. Winston, William S. Brown, Seymour L. Husted, William Phoebus Sands, Charles F. Wreaks, John H. Bewley and others.

By Mr. CAMPBELL:

Q. What reason have you to suppose that the gentlemen named will substantiate your charges? A. Because they have personally given evidence, under oath, of the facts embraced in my petition, and one of them, Mr. McCulloh, has published the results of his examination in the New York Herald.

By Mr. BLESSING:

Q. What relations exist between Mr. McCulloh, Mr. Homans and yourself, or have existed for some time past? A. I have known Mr. Homans for the last eight years, and we are very friendly; Mr. McCulloh has always refused to give me any information in relation to Mutual Life, and has never been on friendly terms with me; but he has furnished my counsel, Mr. Darlington, with particulars of the facts relating to the Mutual Life, and the management thereof by Mr. Winston, since my imprisonment; there has never been any arrangement or collusion between myself, Mr. McCulloh or Mr. Homans to prosecute this company for any wrongs they complain of.

By Mr. CAMPBELL:

Q. Have you, since your imprisonment, applied formally to the Supreme Court by counsel for a reduction of bail? A. I have not, because I was informed it would be useless.

On motion of Mr. Whalen adjourned to Metropolitan Hotel, Monday morning, at 10 o'clock.

METROPOLITAN HOTEL, }
New York, April 7, 1873. }

Before the Assembly Committee on Grievances.

The following members of the committee were present:

Hons. C. W. Herrick, chairman, A. S. Whalen, E. Townsend, Frank Abbott, T. J. Campbell, A. Blessing.

Mr. J. Thomas Davis, clerk; O. T. Atwood, counsel for the committee; Thomas Darlington, counsel for Mr. English; Robert Sewell, counsel for Mutual Life Insurance Company.

Mr. Charles P. Young was duly sworn as the official stenographer.

Mr. JAMES W. McCULLOH, called and duly sworn.

Examined by Mr. Atwood:

Q. What is your name? A. James W. McCulloh.

Q. Your residence? A. Englewood, Bergen county, New Jersey.

Q. Your place of business? A. 60 Beaver street, New York.

Q. Your business? A. Provision broker.

Q. And your age? A. Forty-six.

Q. Do you know Stephen English? A. Yes, sir.

Q. What relations, if any, have you had with him in a business way? A. None.

Q. Have you read his petition? A. I have; since I entered the room.

Q. Not before? A. I may have seen it before; I think I did; I think it was distributed through the mail; but I did not read it carefully.

Q. Have you read it over? A. I have read it; yes, sir.

Q. What were your personal relations with Mr. English, prior to his arrest by Winston; friendly or unfriendly? A. They were not; Mr. English, in 1869, had been guilty of gross rudeness to me in the office of the Mutual Life; threatened me with personal violence, because I was then present opposing the ticket that was nominated by the trustees of the company for the trustees in the election of 1869; I was compelled to call the attention of some of the officers to Mr. English's conduct; I had very little to do with him, and refused all intercourse with him; he very frequently applied to me for information in regard to certain facts which I had ascertained during an investigation in that company, and which I had always declined to give to him.

Q. It might be well enough here for you to state what relations you formerly had with this company; were you an officer of this company? A. Never; I have been a policy holder in the company since 1858.

Q. You heard of Mr. English's arrest? A. I did.

Q. Previous to that time was there ever any conspiracy, agreement or consultation in regard to making a mutual war upon this Mutual

Life Insurance Company? A. Never, sir; I should say that prior to Mr. English's arrest, he came to the ferry to meet me in the morning, at that time being in New Jersey, and I stated to him that I considered he was doing a very foolish thing to keep himself out of the way, and advised him to return to New York and surrender himself.

Q. Previous to the time of his arrest, or previous to the time you saw him, had you ever furnished him with any of the matters that are set forth in that affidavit of Mr. Darlington? A. On one occasion Mr. English handed me an article that he had written in regard to the bonuses distributed amongst the officers, and asked me if that was correct; I stated to him that in the main it was correct; he had made some flaws, but it was not for me to point that out; but in the main it was correct; with that exception he never consulted me, and that was an interview of probably three or four minutes.

Q. Do you know Frederick S. Winston? A. I do.

Q. He is and has been for a long time the president of the Mutual Insurance Company? A. A great many years.

Q. Do you know anything of his relations, as president, with the Mutual Life Insurance Company, and how did you become acquainted with the facts in regard to his business relations with the company? A. I first became acquainted with some facts connected with the company and Mr. Winston's relations from information imparted to me by individuals; I subsequently became better acquainted with it by a personal examination that I made of the books and records of the company in 1871.

Q. 1870 or 1871? A. It may be 1870; I think it was in 1871.

Q. Have you got a memorandum of the time? A. Yes, sir; I can give you the exact date, 1870.

Q. About what time? A. It commenced in March; I will give you the exact date.

Q. We don't care to a day? A. It commenced in the early part of the month of March, 1870; on the 21st day of March, 1870, it commenced.

Q. Under what authority did you make that investigation? A. On that day I had no authority; that 21st.

Q. Did you subsequently? A. I received that authority a day or two afterward.

Q. State what it was? A. I entered upon the examination of the affairs of the Mutual Life in connection with George W. Miller,

the late superintendent of the insurance department, under an arrangement which I had made with him, he understanding that I had received an appointment from the Assembly committee—the Insurance Committee of the Assembly—and would be properly authorized within a day or two to make the examination; and, under that arrangement made with him, I entered upon the examination on the 21st of March; on the 26th of March two of the members of the Insurance Committee appeared in the office of the Mutual Life, and administered to myself and Mr. Thomas Hand, who was my assistant, an oath to perform the duty, and handed me the document, which reads:

“ALBANY, *March 25, 1870.*

“*Resolved*, That James W. McCulloh and Mr. Hand are hereby appointed to examine the books, papers, records, proceedings and minutes of the Mutual Life Insurance Company, under a resolution of March 25, 1870.

“DENNIS BURNS,
“*Chairman.*”

It was under that authority.

Q. In pursuance of that authority, did you make an examination of the books and papers and affairs of the Mutual Life? A. I did, until the Legislature adjourned; immediately upon the Legislature adjourning, the doors were closed against me, and I was not permitted to make any further examination.

Q. Did this investigation continue after you were not permitted to take part in it? A. I believe Mr. Miller went on, on his own authority; I have no positive information except his own statement to me that he had done so.

Q. You may state what you discovered there upon the examination of the books and papers of the office, in regard to Mr. Winston's reviving surrendered and dead policies for the benefit of his family, his friends or any others.

Mr. SEWELL:

I suggest that the committee ask if the testimony taken by Mr. McCulloh was in writing; it would be better to produce it.

Mr. ATWOOD:

That, perhaps, would be so, if we hadn't already got the better evidence of the party himself.

Mr. SEWELL :

What party ?

Mr. ATWOOD ;

Mr. McCulloh ; I understand him to say he made the examination personally, himself.

Q. Did you examine the books yourself ? A. I shall only swear to what I examined myself ; the greater part.

Q. Have you the record of that examination ? A. I have it ; the stenographic record.

Q. You can refer to that, if you see fit ? A. I have not that with me ; that is at home.

Q. Was that examination taken by the stenographer here present ? A. Yes, sir ; this gentleman did not take the whole of it ; there were others.

Q. You may go on and answer the question I ask you, as to what you ascertained there in regard to the action of the president reviving surrendered and dead policies ? A. I ascertained from a record of the books that Mr. Winston's son, Frederick M., the former cashier of the Mutual Life, had taken a policy upon his life for the sum of \$2,500 ; I will explain to the committee what it is I hold in my hand, so that they will know why I refer to it. After the examination was made, the Mutual Life Insurance Company copy-righted the testimony taken before Mr. Miller, and sent a communication, or directed Mr. Sewell to send one, threatening me with prosecution if I published any portion of it. I have that record which was sent to me by them, and which I have carefully collated and examined ; because it is more convenient for me to refer to it than the stenographic copy. I shall use their own record, which I have checked off, to see if it is correct, and where it is wrong I have made the corrections.

Q. Have you the communication which they sent, threatening you ? A. I have.

Q. Have you it with you ? A. Yes, sir.

Q. Will you produce it ? A. (Reading)

“ OFFICE OF SEWELL & PIERCE, }
“ NEW YORK, July 21, 1870. }

“ JAMES W. McCULLOH :

“ I beg to present you herewith with a copy of the examination of witnesses before George W. Miller. You will please take notice

that the same has been duly entered in the Clerk's office of the District Court of the United States for the Southern District of New York, by the Mutual Life Insurance Company, and that a copy-right therein has been secured by the company. I am instructed to inform you that any violation of the copy-right, by the publication of the whole or any part of the said examination, will be prosecuted by the company to the full extent of the law.

“Very respectfully,

“ROBERT SEWELL.”

By Mr. ABBOTT:

Q. Did the company ever publish these proceedings? A. This is the publication; I, myself, afterwards, applied for a duplicate copy, and was refused; and I sent other policy holders there to get them, and they were refused.

Q. Have applicants for these proceedings ever been able to obtain them? A. None, to my knowledge; I sent three or four there, and never could get one.

Q. Did they suppress the publication? A. As far as I am informed; the policy holders that I sent there to get them were unable to obtain them.

Q. You think they endeavored to suppress them? A. I have no doubt of it in my own mind; and that was the object of the copy-right.

By Mr. DARLINGTON:

Q. You were going on with a statement as to what you ascertained in regard to surrendered and dead policies? A. I have ascertained, by an examination of the policy record of the company, that Mr. Frederick M. Winston, the son of the president, had taken out a policy.

By Mr. ABBOTT:

Q. Give us the number? A. No. 22,146.

Q. What date? A. In April, 1861.

By Mr. DARLINGTON:

Q. You ascertained it? A. And know that he took the policy out.

By Mr. ABBOTT:

Q. Was not that in October, 1862? A. He surrendered it in 1862; that policy was for \$2,500; it was surrendered on the 2d of

October, 1862; and its surrender value was paid for it; on the 22d of September, 1862, he took out another policy for \$4,000.

By Mr. DARLINGTON:

Q. The number? A. No. 27,286.

Q. What was done with that? A. That policy was surrendered on the 15th of February, 1864.

Q. And its value? A. \$4,000.

Q. Its surrendered value? A. The surrendered value was paid for it.

By Mr. ARWOOD:

Q. Have you the amount paid? A. I can refer to it; it is later on in this.

Q. Any other policies? A. On the 15th of February, 1864, he took out policy No. 30,964, for \$5,000.

Q. What became of that? A. That policy was forfeited for non-payment of premiums, on the 28th day of November, 1864.

Q. These three policies were all taken out by Frederick M. Winston? A. Frederick M. Winston.

Q. The son of the president? A. Yes, sir.

Q. Did he subsequently die? A. He died in July, 1866.

Q. After his death, what action was taken upon these policies by the company? A. They were restored, and an installment policy was issued for \$12,000; I should explain to the committee that the Mutual Life Company is not a stock company, but a company composed entirely of shareholders or co-partners, and that every policy holder is a partner and a member of the concern, and entitled to all the equities and all the rights of every policy holder, barring the simple fact that a policy holder for less than \$1,000 has no vote for trustees.

Q. By the by-laws of the company, every policy holder for over \$1,000 has a right to vote for the officers of the company? A. Yes, sir, for the trustees; so that every policy holder, whether he is the president himself or is the most humble policy holder in the company, is entitled to the same rights and the same equities, and no more.

Q. You have spoken of a policy being issued for \$12,000; to whom was it issued? A. To Frederick S. Winston and Gustavus S.

Q. The father? A. The father and brother.

Q. Father and brother of the deceased? A. Yes, sir; as trustees for the children of the deceased.

Q. You may state what kind of a policy this was that was issued ; a policy payable ? A. It is a policy payable in semi-annual installments for twenty years.

Q. To these children ? A. To the trustees, for the benefit of the children.

Q. Do you know Alexander W. Bradford ? A. I did.

Q. What relation did he, or has he, sustained to Mr. Winston, or the company, in his lifetime ? A. He was a trustee of the company.

Q. What was his business ? A. He was a lawyer ; former surrogate of the city of New York.

Q. State what you know, if anything, in regard to the policy obtained by him for the benefit of his wife ? A. I searched the record and found a policy, No. 30,080 ; my impression is that is a misprint, and that it is 3,080. It was an early policy ; it was in 1846.

Q. You can give the policy by its date, then, rather than by its number ? A. Yes, sir ; it was taken out in 1846 ; my impression is that the number was 3,080, and this record is incorrect ; that number has not been altered.

Q. How much, and for whose benefit ? A. It was taken out for the benefit of Mrs. Bradford, the wife.

Q. What was done with that, if anything ? A. The facts with regard to that are what Mr. Winston himself swore to, as beyond and above the record ; the record shows that on the 14th of June, 1867, Mrs. Bradford was paid \$3,000 for that policy.

Q. As the surrendered value ? A. As the surrendered value ; that policy was surrendered in violation of the law ; Mr. Winston had no right to buy that policy.

(Objected to by Mr. Sewell ; the question is as to the facts, and not as to the law.)

By Mr. DARLINGTON :

Q. What was the law which you say was violated ? A. I will read from the last statement of the Mutual Life itself : " Policies on the life of a husband or father, and in favor of his wife or minor children, cannot, by law, be surrendered, transferred or alienated in any way whatever."

Q. Are you reading from the by-laws of the Mutual Life Insurance Company, as published by them ? A. Their last publication.

Q. You are reading from the printed by-laws of the Mutual Life Insurance Company, as published by them ? A. No, sir ; this is a publication by them but a very short time since.

By Mr. SEWELL :

Q. Tell us the date of it? A. This is a publication made since the 1st of January, 1873.

By Mr. ABBOTT :

Q. Was this rule in force at the time of the surrender of that policy; had it been adopted at that time? A. I am informed it was under decision of the Court of Appeals.

By Mr. SEWELL :

Q. When was it surrendered? A. On the 14th of June, 1867, Mrs. Bradford was paid \$3,000 for the policy; the value of that policy, by the standard used for other policy holders, was \$2,572.26.

By Mr. ABBOTT :

Q. And she received how much? A. \$3,000.

By Mr. ATWOOD :

Q. Now state whether that policy was subsequently revived, and, if so, when, and what became of it? A. That policy was restored on the 24th of September, 1867.

Q. In whose favor? A. That I will have to refer to my record at home, but it was paid as a death claim to the executors of Judge Bradford.

Q. It was paid as a death claim to the executors of Alexander W. Bradford? A. Yes, sir.

Q. When? A. In December.

Q. Can you give the date? A. Yes, sir; 23d day of December.

Q. 1867? A. 1867.

Q. When did the death of Alexander W. Bradford occur? A. I am not able to give the exact date.

Q. Do you know whether there was any new consideration paid for the restoration of this policy at the time it was restored? A. The \$3,000, with interest, was refunded.

Q. Do you know what the condition of Mr. Bradford's health was at the time of the restoration of this policy, either from your own knowledge or from the admission of Mr. Winston?

Mr. SEWELL :

I respectfully suggest that that last sentence ought not to be added to that.

Mr. ATWOOD :

I suppose a man's admissions are evidence against him.

Mr. SEWELL :

He is not on trial, that I am aware of; he will be a witness, and will be able to tell you himself.

By Mr. ATWOOD.

Q. Do you know, of your own knowledge, what his condition was at the time this policy was restored? A. I do not.

Mr. SEWELL :

I do not understand it to be the object of this committee to try Mr. Winston.

Mr. ATWOOD :

That is just what we are doing.

Q. How long after the restoration of this policy did this gentleman die? A. According to my information, he died in October.

Q. It was restored on the 24th of September? A. Yes, sir; the statement of Mr. Homans, the actuary, under oath, was—

Mr. SEWELL :

Objected to unless they are in writing; my objection to this evidence is not about this particular time; Mr. Bradford may have been in bad health or may not have been; I merely make the objection, because if we begin this questioning as to what people said, the committee will be in a whirlpool; we can get all these gentlemen and have the truth told.

The CHAIRMAN :

I think the objection should be sustained, in regard to hearsay evidence.

Mr. SEWELL :

I want to say here that nobody has a higher appreciation of Mr. McCulloh's character than I have, and I know he will say nothing to the committee except of his own knowledge; nobody will be more particular to keep it out than Mr. McCulloh, as soon as the committee rule to keep out hearsay evidence.

Q. Were these three policies you speak of as being restored,

restored by the action of the trustees of this insurance company, or by the direction of the officers, or by the direction of Mr. Winston; did you ascertain anything about that fact? A. My knowledge of that fact is gathered from an examination of the records of the company.

Q. What did they show? A. They were restored, in the first place, upon a recommendation in the shape of a resolution passed by the insurance committee in July, 1866, and the recommendation of that committee approved by the board of trustees on the 16th, I think, of August following, if those dates are correct.

Q. When was this Bradford policy paid? A. It was paid on the 23d of December, 1867; in regard to that restoration, I could find no record whatever.

Q. Of any action of the committee? A. Of any action of the committee.

Q. How much was paid on the Bradford policy? A. The pamphlet before me has it \$9,418.20; my own record is \$8,914, 20; I think this is a reversal of the figures.

By Mr. DARLINGTON:

Q. Will you be kind enough to read the ninth by-law? A. (Reading) "New York Life Insurance Report of 1868: Whenever policies are to be purchased by the officers, on surrender, the actuary or his assistant shall first ascertain their value, by the standard fixed by the company, and attach the said value to the policy, duly certified, which sum shall, in all ordinary cases, govern the officers in said purchase; whenever, from extraordinary causes, any departure is made from the usage of the company, the consent of the insurance committee shall be obtained therefor, and the same shall be duly reported on its minutes." The restoration of the policies on the life of Mr. Winston's son was acted upon by the insurance committee.

Q. How about Bradford? A. On Judge Bradford's I could find no record.

Q. Nothing attached to the policy? A. No, sir; Mr. Winston's own testimony on that subject you will find if you call for a copy of these publications.

Mr. ATWOOD:

It has been suggested that you furnish the committee with a copy of that.

Mr. SEWELL:

With great pleasure.

Q. Do you know anything about a policy on the life of one J. B. Houston; if so, what? A. There was a policy on the life of Mr. Houston.

Q. Can you give the number and the date of the policy first issued; we have the date of the surrender of it, the 11th day of March, 1869? A. No; there is a question of veracity in that matter.

Q. What other policies, if any, were paid greater than their surrender value? A. There was one paid on a policy to J. B. Houston.

Q. Do you know the number of the policy? A. 56,476.

Q. The amount? A. The amount of the policy was \$10,000; the amount of premiums paid on it was \$1,529.45; the amount paid him for it was \$1,529.45.

Q. What had been the actual surrender value? A. The actual surrender value would have been much less than that; I would suggest that, in all these matters the committee will find in this publication, they will discover there is a question of veracity between Mr. Lawton, the assistant actuary, and Mr. Houston; I think, if you will call for that publication, you will get the evidence there yourself, and make your own conclusions from it.

Q. Upon the examination of the books of this company, did you ascertain what bonuses had been paid to the president and his family, besides his regular salary? A. I did.

By Mr. DARLINGTON:

Q. Commence with the action of the committee on the 7th of June, 1865; what was done with reference to his salary? A. The subject of the salary of the president, according to the records, was referred to a committee on the 7th of June, 1865.

By Mr. ARWOOD:

Q. Name the committee? A. The names of the gentlemen of that committee were Alexander W. Bradford, Isaac Green Pierson and John P. Yelverton.

Q. What was the action of the committee on the 7th of June? A. There was no report ever made on the subject of the president's salary, until November, 1867.

Q. What was then done? A. The committee then reported—

Judge Bradford in the meantime had died—and the committee that reported was Henry E. Davies and Seymour L. Husted; they recommended the fixing of the salary of the president at \$20,000 a year, to commence and be paid from the 1st day of February, 1865; “*Resolved*, That the salary of the president be fixed at the sum of \$20,000, to commence and be paid on and from the 1st day of February, 1865,” is the wording of the record.

Q. You may go right on and state what was paid to Mr. Winston, and what bonuses? A. I have stated that I examined the books of the company with regard to that interregnum, and found that all the money drawn during that time by Mr. Winston was charged to suspense account.

Q. How much? A. He drew at about the rate of \$12,000 a year; about \$1,000 a month. I have the exact amount, if it is of any consequence; but it is about that. At the same time that the committee reported upon the salary they recommended that they unhesitatingly approve of the views expressed by the committee of which Mr. Bradford was the chairman in June, 1865. By that approval it authorized Mr. Winston—this recommendation of the committee with regard to salary, and the adoption of the views of the committee of 1865, were approved by the board of trustees, and under that authority Mr. Winston drew the bonuses on dividends.

Q. State what they were, and how they were entered when paid? A. There was a bonus of one per cent paid upon the dividend of 1865, and one-half of one per cent on that of 1866 and 1867; these two together amounted to the sum of \$37,471.60.

By Mr. SEWELL:

Q. Do you mean that Mr. Winston received it? A. I will give the exact amounts that he received; the amounts paid to Mr. Winston were paid 20th February, 1868, and on the 23d day of February, 1869, and on the 20th January, 1870, making a total of \$56,250.42 paid to Mr. Winston.

By Mr. DARLINGTON:

Q. In addition to his salary? A. Yes, sir; over and above his salary.

Q. Did you notice how that account was entered on the journal, and, if so, how was it entered? A. All, with the exception of the last \$5,000, was charged up to dividend account.

Q. Dividend of what? A. Precisely the dividend charged up and paid to policy holders; the memorandum in my possession here is in the handwriting of the book-keeper, and was made during that time, handed to me, and checked and found to be correct; the bonuses that were paid in 1866 were charged to suspense account; during that year, 1866, there was no bonus paid to Mr. Winston; he didn't take it; the bonus paid in February, 1867, was charged up to dividend account—1868 dividend account and 1869 dividend account, so that all that was paid to Mr. Winston was charged up to dividend account.

Q. I think that you will find that there was another bonus of the next year? A. The next year there was a bonus of twenty per cent on the salaries, and that was charged originally to dividend account, but subsequently transferred to suspense account.

Q. When was the first dividend to Mr. Winston paid? A. In January, 1868, \$25,620; the whole of Mr. Winston's drawings had been charged to suspense account of the company, and, after the resolution of the board, that portion which exceeded the \$20,000 per annum salary was charged up to the dividend account as a portion of his bonus, and the balance of \$23,993.20 also charged to bonus account; that was on the 18th of January, 1868; on the 20th of February, 1868, he received \$11,851.60.

Q. Was this a bonus? A. Yes, sir; and then, in 1869, \$13,778; all those items together make the \$56,250.92.

Q. That he received as bonuses? A. Yes, sir; over and above his salary.

Q. From what fund was this bonus paid? A. It is charged up to dividend account.

Q. From what moneys; moneys in the possession of the Mutual Life? A. Certainly; it ought to have been a charge to the expense account of the company; it was an actual expense to the policy holders; it was their money, and it was divided amongst the officers.

By Mr. Atwood:

Q. Was there any resolutions or preambles about this bonus, setting forth any reason why Mr. Winston was paid this extra amount? A. Yes, sir; there was a long report drawn by Judge Bradford, giving the reasons and policy of such a transaction.

Q. Alexander W. Bradford? A. Yes, sir; I should state here, in fairness, that that action appears on the records to have been taken

upon an application made by Mr. Sheppard Homans, actuary, and Dr. Post, the medical examiner.

Q. What was Mr. Winston's salary, previous to 1865? A. Just previous to that it had been \$12,000; it had been gradually increased from year to year, according to the increase of the company.

Q. You have spoken of the report of that committee being delayed about two and a half years, and Mr. Winston's salary being suspended; was there any other officers' salaries suspended during this time? A. No, sir.

Q. Do you know the reason of his salary being suspended or of any reason why his salary was suspended during this period of time, the interregnum of the report of this committee? A. I do know a reason, but unless it is pertinent here, I would rather not give it.

Q. It is pertinent? A. Mr. Winston was a bankrupt, and was under examination at that time, upon supplementary proceedings, in order to make discoveries, and an effort was being made to reach his salary by his creditors; from an examination of the records, and an examination of his own testimony in that order to make discovery, and from other matters which came to my knowledge, it was apparent to me, as a reasonable man, that the whole action was intended to put his salary beyond the reach of his creditors.

Q. Done to protect Mr. Winston? A. I have no doubt of it; I don't think any reasonable man can doubt it.

By Mr. DARLINGTON:

Q. Will you give us the names of the committee who acted on these surrendered policies? A. The insurance committee?

Q. Yes? A. William H. Popham, William Betts, Henry A. Smythe; there was one other; "July 16, 1866, appears Bradford, Betts, Smythe and Popham;" it was Judge Bradford.

By Mr. ARWOOD:

Q. Mr. Winston was the president of this company? A. Yes, sir.

Q. Did he have any sons in the company, acting as clerks, or in what capacity? A. This one that I have alluded to was the cashier; he has another son who is a medical examiner, and another son who is a clerk, and a son-in-law who is an agent.

Q. You may give the names of these parties, if you can: the son-in-law?

Mr. SEWELL :

We will give the names : Harvey B. Merrill ; and the medical examiner is Gustavus S. Winston, and the other son, who is a clerk, is James Winston ; that is all.

Q. From this examination, did you find that any bonuses had been paid to any other of Winston's family ? A. Yes, sir.

Q. If so, what, and to whom, and on what date ? A. My attention was called particularly to the bonuses paid them, by reason of the fact that it was asserted that the cashier died in poverty, and that the restoration of those policies was justified for that reason ; I will give that one first, Cashier Winston received, March 9, 1866, \$3,750.

Q. Was that a bonus or salary ? A. Bonus.

Q. What was his salary ? A. At that time it was \$3,000 ; you will find in this statement here that Mr. McCurdy testifies that that salary was \$2,750 ; you will find that Mr. Lucius Robinson, in a letter, also states the same fact, that it was \$2,750 ; the records show that it was \$3,000 ; that salary was continued after his death, until the 1st of February following, by order of the board of trustees, and paid to his family, and a bonus of \$600, in addition was paid on the 21st of February, 1867 ; I would state, with regard to the payment of that salary after his death, that it would appear to have been a fair and proper thing to do, and in accordance with previous actions of the company, had the trustees been aware of the fact, or had they not been ignorant of the fact of the restoration of those policies, to the extent that they were done ; I would like to say to the chairman, in making such explanations as these, I do it for the reason that it is asserted and proclaimed that I am a bitter opponent and enemy of the Mutual Life Insurance Company ; for that reason, I make explanations where I deem that they are proper ; you, gentlemen, must judge the animus of my testimony as I give it.

Q. In regard to these bonuses, how did that appear upon the books of the company ; what account was that charged to ? A. That in March, 1866, was charged to suspense account ; all the payments of 1866 was charged to suspense account ; the subsequent years were charged to dividend account ; this young gentleman died in 1866, so that he had no bonus subsequent to that.

Q. Now, you may state as to what other bonuses were paid ? A. The medical examiner received \$2,296.49 in February, 1869, which was charged to the dividend account, and \$1,400 on the 20th of January, 1870.

Q. Those were in addition ? A. That was in addition to his salary ; his salary in 1869 had been fixed at \$7,000 a year.

By Mr. DARLINGTON :

Q. Do you know anything about the purchase of the son-in-laws ?
A. I was examining that account when the doors were closed against me, and I had no opportunity to finish that examination ; I had partially done it, but not satisfactorily.

By Mr. ATWOOD :

Q. Did you go so far as to ascertain that any bonuses had been paid to him ? A. He was not entitled to a bonus ; he was not an officer ; he was simply an agent of the company.

Q. What effect would it have in charging these bonuses to dividend account instead of expense account ? A. It would have the effect upon the ratio of expenses, of diminishing it ; it also served to conceal it from the policy holders ; they had no means of ascertaining that such payments were being made ; according to the evidence *here*, they concealed it from some of the trustees themselves.

Q. You have no means of knowing what the difference in the ratio would be between the dividend as declared, than it would have been had these extra sums not been taken ? A. No ; such an enormous amount of money as they are handling this very year, it would make but a slight difference to the policy holders ; the difference would be small.

Q. You have spoken of the ignorance of some of the trustees as to the effect of their action upon this policy of Winston's that was revived ; what do you know about that ? A. I know from the testimony of the trustees themselves.

Mr. SEWELL :

That testimony I will furnish.

WITNESS—It is here ; you will find Mr. Popham testified that he had no idea—

By Mr. ATWOOD :

Q. You may state who they are ? A. The only two that were examined were Mr. Popham and Mr. Betts ; Mr. Smith being away from the country at the time, and Judge Bradford dead.

By Mr. SEWELL :

Q. Their evidence is found on what page of the book ? A. Mr. Popham's evidence commences on the seventy-fifth page ; his testimony there is that he derived the impression that the amount to be restored was about \$1,200, and gives his reasons.

By Mr. ATWOOD :

Q. You have stated that this being a mutual insurance company, the policy holders all have a right to vote for trustees ; how many of them generally voted ? A. Well, up to the election of 1869, I think there were very few policy holders that took any part in the election, personally.

Q. What regulations were made by the company, in 1869, in regard to those policy holders voting ? A. The time of election was the same as it always had been, and the doors were thrown open.

Q. Was any regulation made in regard to their voting and indorsing their names ? A. Those who voted personally were required to put their names on the back of their ballot ; Mr. Sewell was one of the inspectors of election at that time.

Q. What do you know about proxies being obtained to further the interests of Mr. Winston, as an officer of this company ? A. I knew they had a very large number of proxies ; I could not ascertain the quantity ; and they were used at that election.

Q. How were they obtained, and at whose expense ? A. I can't answer that from knowledge ; only from information.

Q. What information have you upon the subject ? A. My information is, that they were obtained through the agents of the company.

Q. Can you tell the committee who has any information upon that subject, so that we can examine them ? A. Mr. McCurdy and Mr. Winston, themselves both knew where they got them ; and I presume that clerks in the office knew ; I know that they held enough to control all the elections.

Q. I see that the petition of Mr. English states the mal-appropriation of funds, and the use of funds of the company at Albany and other places to influence legislation and other matters ; what do you know about that ? A. I know that that appropriation of money to pay the restored policies of the president's son is a mal-appropriation of money, which never would have been done to any other policy holder.

Mr. SEWELL :

That hardly led to the influencing of legislation.

WITNESS—He asked me about the mal-appropriation of money.

Q. We will ask you directly in regard to any other mal-appropriation of any other kind; do you know of any other mal-appropriation of the funds of this company; you understand the general meaning of mal-appropriation of funds? A. Every dollar of money expended improperly there was used illegitimately and mal-appropriated, in my opinion; the moneys that were paid for illegally-restored policies were mal-appropriated; and the money that belonged to the policy holders, and was distributed amongst the officers of the company as bonuses, in addition to salaries that were amply sufficient to remunerate them, were certainly mal-appropriations; moneys that were spent according to the records at Albany and elsewhere.

Q. Give us the particulars of what was spent at Albany? A. I discover that, among the payments, the company charged up as taxes some \$6,000 paid to B. F. Manniere during the years 1868 and 1869; he was commissioner of police, I believe, at that time.

Q. For this city? A. Yes, sir.

Q. Mention some of the other names and amounts? A. Moneys paid to William A. Bailey for services at Washington.

By Mr. SEWELL :

Q. How much? A. I find one item of \$1,000 on the 10th December, 1868, and another \$1,000 on the 6th January, 1869, and another one of \$1,000 on March 20th, 1869; these items were claimed to have been expended in order to relieve the company from taxes.

By Mr. ATWOOD :

Q. Does it appear, or did it appear on this examination, what this money was paid to Manniere for? A. No; it was not disclosed.

By Mr. DARLINGTON :

Q. What taxes was it they endeavored to get relieved from? A. I couldn't ascertain.

Q. How were those payments entered? A. They were charged up as taxes, and some of them to Manniere as legal expenses.

Q. Can you tell me about the money paid for rent to Boston offices? A. I can only tell you what the record shows.

Q. State it? A. The record shows that there was \$2,250 paid to Mr. Hyde of the Equitable Insurance Company, which is charged up as rent of office.

Q. Of the Boston office, at the Boston agency? A. Yes.

Q. Was that charge a proper charge; was there any such expense or liability incurred by the company? A. That I can only answer on information.

Q. What is your information? A. My information is that it was spent at Albany.

Q. From whom did you derive the information? A. I derived it from several parties, but I put the question to Mr. Hyde under oath, directly, and he refused to answer it; from Homans I understood that Mr. Hyde informed him that he had used it at Albany.

By Mr. ATWOOD:

Q. What year was that? A. The 7th of May, 1869; it was one of the items in an account which caused Mr. Shepherd Homans, as actuary, to refuse to audit the account.

By Mr. DARLINGTON:

Q. When was that refusal; didn't he refuse to audit the November quarterly and the January annual statements? A. Yes.

Q. What was the amount of money that he claimed was expended? A. \$2,250 in that item.

Q. Can you give us the amount that you have there in reference to what was expended in legislation prior to that examination? A. I can only state this—about this account I was refused any explanation other than that they were paid.

Q. One of the committee asks for the items of expense? A. I can give you the total of them: April 4th, 1868, Benj. F. Manniere, \$500; May 2d, to same, \$500; 11th, Benj. F. Manniere, \$1,000; February 3d, 1869, \$1,000; May 14th, \$1,500; June 11th, \$1,500; in 1868, in March and April there was paid \$1,100, charged up as legal expenses.

By Mr. ATWOOD:

Q. Does it appear by the books of the company that those trustees received any pay; do they receive any pay to your knowledge? A. To my knowledge they only receive pay for attending meetings—as trustee meetings or committee meetings.

Q. Is there any price fixed? A. I believe there is a fee fixed;

probably five or ten dollars; ten dollars for committee meetings and five dollars for trustee, I think, in gold, or something of that kind; that is an ordinary, customary thing in all corporations.

Q. Is there any of the trustees that derive any other benefits than these fees that are allowed them? A. There are a number of them that derive benefits in connection with the company.

Q. In what way? A. By their connection with it, as the lawyers of the company.

Q. Are the attorneys of the company trustees, any of them? A. Mr. Davies is, and Mr. Betts is.

Q. What benefit do they derive? A. I can't tell you the exact amount.

Q. State in what way they derive a benefit? A. They derive a benefit through fees for services as lawyers, counsel of the company, and they derive a very large income from the examination of titles.

Q. Who is that paid by? A. That is paid by the parties, as I am informed, who make the loans from the company.

Q. Persons borrowing the money? A. Parties borrowing the money; that income must be very large.

Q. About how much is annually loaned by this company? A. That, I have not the figures at hand to give; it is a very large amount.

Q. Several millions of dollars? A. Yes, sir.

Q. What percentage is charged the borrower, or do they receive from the borrower? A. I never borrowed a dollar from them, and I don't know.

Q. Does anything appear from the records? A. No, sir; the company's records would not show it.

Q. It comes out of the borrower? A. Yes, sir.

Q. This company is constantly receiving cash, and has large amounts of cash on hand? A. Yes, sir.

Q. What is done with it? A. It is by law required to be invested on bond and mortgage, or in public securities of the United States government, State, or incorporated cities of New York.

Q. Do you know of any investments being made outside of that? A. None, except upon hearsay; that is, now I have none.

Q. You have stated about this "cash on hand;" now, what is done with it, and where is it deposited? A. It is deposited in bank temporarily.

Q. You don't know about how much they usually have on hand, or on deposit in the bank, do you? A. No, sir; I have not exactly

had the opportunity to know what they do have; they must have a large amount, naturally; their own statements will show it.

Q. What do you know about the interest on these deposits? A. That I don't know; in a corporation of this kind, where the premiums are coming in very heavily, and especially on quarter-days, their deposits must be very heavy.

Q. Do you know of this money being loaned or deposited in banks or corporations in which any of the trustees of this company are interested? A. Only from information; not from examination of the books.

Q. Information derived from whom? A. From parties themselves; some of them connected with the banks, and from outside parties; I never had the opportunity to examine into that.

Q. Do you know of a company here, known as the Indemnity Company? A. Yes, sir; the New York Guarantee and Indemnity Company.

Q. That is the title of the company? A. Yes, sir.

Q. Who was president of that? A. Mr. James B. Wallace was president, of that, I believe.

Q. Who was the president a few years back; was it Babcock? A. I don't know whether it was or not; his brother was vice-president.

Q. Samuel D. Babcock's brother was vice-president? A. He is now, I believe.

Q. And is Mr. Babcock interested in the Indemnity Company? A. Mr. Babcock, I understand, is one of the largest stockholders and controllers of the affairs of it; the most influential director or trustee of it.

Q. Of this Indemnity Company? A. Yes, sir.

Q. And what relation does he bear to the Mutual Life? A. He is a trustee; and I think he is chairman of the finance committee; I think so; I am not certain; he is one of the members of the finance committee; he has been, but may not be at this moment.

Q. Do you know what rate of interest the company receives on these deposits, if any? A. From the bank?

Q. From this Indemnity Company, or from anybody? A. No, sir; I do not; only from what I am told; I am told, but I do not know from my own knowledge; I have not had the opportunity to examine.

Q. Do you derive any of this information from the officers of the company? A. No, sir.

Q. Or from parties borrowing? A. From parties who profess to know where they do put their money.

Q. State who those parties were; if it is simply hearsay, we will bring the parties themselves? A. I hear it currently reported.

Q. What other companies than this indemnity company are they; do you know whether they keep any deposits in the Bank of Commerce? A. They may have kept one in the American Exchange Bank, and in other banks, as a matter for temporary accommodation, which they must have.

Mr. SEWELL :

I suggest that the officers of the company will give the committee accurate and particular information on this subject.

By Mr. BLESSING :

Q. Have the trustees of this company violated the charter by holding private property to any amount? A. In what way? I don't understand that there is any provision of the charter that prohibits the trustees from holding property.

Q. Do you know whether they have appropriated money to buy private property; is there any provision prohibiting them from buying private property? A. I have not been able to find that out.

By Mr. DARLINGTON :

Q. Do you know of loans to trustees? A. Yes, the books show that.

Q. Was Seymour L. Husted a trustee? A. Yes, sir.

Q. State what you know about any return of money in July, 1864; did he pay any money to the Mutual Life Insurance Company? A. The records show that Mr. Husted received from Mr. Winston, on the 30th of June, 1864, \$30,000.

Q. And on the 15th of July? A. On the 15th of July he returned the money with interest.

Q. Was any property left with Mr. Winston at that time? A. There is nothing on the records to show that there was anything.

By Mr. ATWOOD :

Q. Any security taken? A. There is nothing on the records to show it. The proper records show nothing of the kind.

Q. What representation was made to the finance committee as to this money which was received from him on the 15th of July? A. When the money was paid to Mr. Husted, it was charged as U. S. stocks.

Q. As if it were a purchase? A. As if it were a purchase; the president had authority from the finance committee to invest surplus funds in U. S. securities.

Q. Had he any authority to sell them? A. He had not.

Q. When the money was paid back how was the entry made? A. The entry in the book was, received from Seymour L. Husted, \$30,000 and interest; the money was credited, when it was returned, on the cash-book of the company as received for U. S. securities, or, received from Seymour L. Husted, U. S. securities; in the statement that was prepared for the finance committee, by William P. Sands, that amount was originally entered as received for U. S. securities; by direction of the president, that entry was erased, and the money was included as having been received from premiums; and in that way it was concealed from the finance committee.

By Mr. DARLINGTON:

Q. Do you know of any loans made by the president, to others than directors, not entered upon the books? A. Yes, sir.

Q. State the amount of those? A. During the year 1864, Mr. Winston made advances to Colonel Sam'l North and John F. Seymour.

Q. Upon what arrangement? A. Upon an arrangement he made with Governor Seymour.

Q. Did they draw drafts? A. They drew drafts upon Mr. Winston.

Q. As president, or individually? A. No, sir; in his individual capacity.

Q. Give us the amounts of those drafts, and the dates, as near as you can? A. Between the 14th day of June, 1864, and the 12th of September, 1864, the amount was \$18,491.86.

Q. Which had been advanced? A. Yes, sir; there was no record on the books of the company of this; the schedule that I hold in my hand was furnished to me from the Comptroller's office at Albany; "schedule of drafts paid by Frederick S. Winston, according to accompanying vouchers," running through, and sworn to and certified by him at the end; and certified to as having been paid by him; it is an abstract from the Comptroller's record.

Q. How was it repaid, and when? A. It was paid by Comptroller's warrant No. 6,336, dated the 16th of September, 1864; "State of New York, to Frederick S. Winston, for moneys advanced by him to agents of the State of New York, on drafts, in pursuance of arrangement made by the Governor under chapter 224 of Laws of 1863, as per abstract annexed, \$18,491.86."

By Mr. SEWELL:

Q. Was that paid in one warrant? A. Yes, sir.

Q. What date? A. On the 16th September, 1864; the money had been all that time in use by Mr. Winston, without the knowledge of the finance committee or of the trustees, with the exception of Lucius Robinson; he appears, by the record, to have been a party to the transaction; I would call your attention to the provision of the law under which that money was expended; that law authorizes the Governor of the State to advance to these agents whatever sums might be required to carry out the purposes of that law, first having taken from those agents ample security for the proper disbursement of the money; and authorizing the accounts to be passed at Albany, in the same way that other war accounts were passed; after being properly audited, they were then to be paid by the State; that ample security does not appear to have been taken by the Mutual Life, nor any other security, excepting the individual responsibility of Colonel North and Mr. Seymour, upon those drafts.

By Mr. ATWOOD:

Q. What was this money used for? A. It was used at the front, for the benefit of sick and wounded soldiers; the draft was drawn on Mr. Winston, and he paid it.

By Mr. DARLINGTON:

Q. Was that drawn by him as president, or individually? A. No, sir; individually.

Q. During the time this money was so loaned or advanced on those drafts, how was it kept on the books of the company? A. It was represented as cash in the cashier's drawer.

Q. In a little slip or memorandum kept there? A. I could not find that book; that was kept by the cashier, the president's son.

Q. But, in the meantime, there was nothing on the books? A. No, sir.

Q. Neither the committee nor the trustees knew anything about it?

A. No, sir; nothing to show it at all (except it was known by Mr. Robinson), as far as I could ascertain; you will find on the records of the company a record of those facts, drawn up and signed by five of those trustees in 1864.

Q, Have you the minority report of 1864? A. I have a copy of it.

Q. Will you be kind enough to furnish the name of the trustee?

A. William Smith Brown.

Q. Will you produce the report? A. The report is dated the 15th February, 1865; William Smith Brown.

By Mr. Atwood:

Q. Read it.

Witness reads report, as follows:

"The undersigned, a member of the committee of five appointed by resolution of the board November 16th, to examine the affairs of the company, and for other purposes, as therein stated, begs leave to report that he is unable to concur with the majority of the committee in a statement made in their report, in the following words, to wit: 'In respect to the management of our affairs with integrity, fidelity and efficiency, the committee have found nothing to condemn, and much to please.'

"Judge Bradford was the chairman of the committee, and the one who drew up the report.

"By the report presented, signed by all of the committee, containing a brief recital of the evidence which came before the committee in reference to the charges made by J. G. Pierson, Esq., it will be seen that

"1st. That the essential facts charged by Mr. Pierson, in regard to the use of the funds of the company for some length of time to pay certain drafts made by or on John F. Seym ur, Esq., or Col. North, are admitted. It appeared in evidence that these drafts were paid by order of the president, from time to time, out of the cash belonging to the company; that no checks were drawn for the money, but that cash from the cashier's drawer was used, and the amounts so paid kept by him as cash on hand, in his drawer, and so represented from week to week to the finance committee, in the regular weekly statement of the finances of the company prepared for the use of the finance committee, until the total reached an accumulation of several thousand dollars, and that no evidence or trace of these transactions appear upon the books of the company. In fact they were concealed from the finance committee and from your board as long as they could be.

"It appears to me that such use of the funds of this company secretly by the president, without authority, and without any plea for necessity, as the money could easily have been obtained elsewhere, is highly improper, and that the weekly representation to the finance

committee, by the knowledge of the president, that the unpaid drafts held by the cashier was cash on hand, was a known deception and incorrect report.

"2d. The report referred to admits, as proven, that the president did pay a trustee \$30,000 for United States securities, and did subsequently allow said trustee to take back the same securities upon repayment of the amount he received with interest. Also that the clerk who prepares the weekly report of finances for the finance committee did prepare his report, when the money was returned, in accordance with the fact, and by the order of the president he erased the proper entry on his return, and entered the amount as received from premiums. To understand this correctly, it must be borne in mind that the Husted transaction had never been reported to or was known by the finance committee; and, with a full knowledge of all the facts, the president directed the clerk to change his return and enter the sum of \$30,000, paid back by Husted to redeem or repurchase his securities, as money received from premiums.

"I am unable to view this in any other light than an incorrect statement and an intentional and designed deception, and the whole transaction as one deserving of serious condemnation.

"Believing, as I do and must, that both of the transactions referred to are morally wrong, a violation of duty, integrity and fidelity, as I understand the meaning of these words, to the trust committed to the charge of the president of a company holding millions of dollars that eventually are to be paid to widows and orphans, I regret my inability to concur with the majority in saying that we found nothing to condemn.

"All of which is respectfully submitted.

"(Signed)

WM. SMITH BROWN.

"NEW YORK, *February 15, 1865.*"

By Mr. ABBOTT:

Q. What action was taken on this report? A. This was a minority report; the majority report was adopted.

Q. They did not take any action on this? A. They approved the majority report; they found "nothing to condemn, and much to approve" in Mr. Winston's misrepresentations, and suborning his clerk to the same.

By Mr. ATWOOD:

Q. After this investigation, and in the month of May subsequent, and at different times since that investigation, have you made these charges, at different places, publicly? A. I have.

Q. State when and where? A. First at Boston.

Q. In what way? A. At a public meeting in the board of trade rooms.

Q. Who was present? A. Mr. Alexander Rice presided at the meeting, and Mr. George Richardson was present; both of those gentlemen have since been made trustees of the company; Mr. Sewell, Mr. John V. L. Pruyn, were present, and Judge Henry E. Davies; I went there at the request of the policy holders of Boston; an effort was made to forestall any remarks I might make there, by a false statement that was telegraphed from New York, over the authority of George W. Miller.

By Mr. DARLINGTON:

Q. You made these statements there, substantially? A. I did.

Q. And also at Baltimore? A. I did the same thing in Baltimore.

Q. About how long afterward? A. About three weeks, I think; the same gentlemen accompanied me at Baltimore, and we were all here.

Q. Mr. Sewell, and Mr. Davies and Mr. Pruyn? A. Yes, sir.

Q. Afterward in New York in what month? A. It was prior to the election in the month of May; in June; that was in the board of public stock-brokers; the room of the stock-brokers' board.

Q. In Broad street? A. Yes, sir.

Q. State about that meeting; was it a public meeting? A. Yes; it was called by the policy holders; at the request of the policy holders the meeting was called; I was present there then, and Mr. Sewell and Mr. McCurdy, the father of the vice-president; and the company was also represented by Mr. Husted, now of the Assembly.

Q. James Husted? A. James Husted.

Q. And were those the same charges as you understand are complained of in these articles, on which Mr. English is now arrested?

Mr. SEWELL:

Mr. McCulloh cannot possibly know upon what it is Mr. English is arrested.

WITNESS.—I will reiterate what I said; it is short.

By Mr. ATWOOD:

Q. Do you know what charges Mr. English has been arrested on? A. I understand he has been arrested by Mr. Winston upon a charge—I believe for having charged Mr. Winston with malappropriation of some—

Q. The same charges which you had, in substance, already made

at these different places? A. Charges based upon the same facts, understand; yes, sir.

Q. Give the substance of your statements at these places? A. My statements were that policies of insurance had been illegally restored for the benefit of the president's family—the members of his family, and of others; at that time I did not mention the fact of Judge Bradford's policy; I didn't wish to be any more personal than was absolutely necessary; I considered that, also, as a flagrant outrage; and *that* one, of Winston's policy, as especially so; I stated that that was obtained through a withholding of the facts, and misrepresentations by the vice-president, Mr. McCurdy; I reiterated the facts with regard to the bonuses, and the manner in which it was charged; the large amount paid in addition to the salaries; some violations of the by-laws; the illegal loan to Mr. Husted; and the advances of money to Messrs. North and Seymour; I feel, as a policy holder in this company, that the property is partly mine; I have contributed to its support; and I hold that I have a right, as a policy holder, to criticise and to condemn, if it is necessary, the action of these officers.

Q. You are now a policy holder? A. I am now, and I propose to stay there and fight it out.

By Mr. ABBOTT:

Q. How large a policy holder? A. I have policies there to the extent of nearly \$15,000; and the property of that company is partly mine; when I find that policy holders can obtain—the friends and family of the officers—what other policy holders cannot get, and can obtain it in violation of law and equity, I hold it my right to condemn it; I do it publicly, and without hesitation.

By Mr. ARWOOD:

Q. Has Mr. Winston, the president of this company, made any threats to you in regard to your conduct in exposing these things? A. He has.

Q. State what? A. He stated to me—his remark was that I was the most malignant person that he ever saw; and he would use the whole power of that company but what he would crush me.

Q. When? A. Two years ago.

Q. Who else knew of that remark? A. Some of the trustees have spoken to me about it.

Q. Is Mr. Popham one? A. Yes, sir; Mr. Popham has spoken to me about it; he has endeavored to induce me to believe that it was a mere threat, and did not mean anything; I have also been told lately that Mr. Sewell is now engaged in ferreting anything out that he can ascertain to attack me on.

By Mr. SEWELL:

Q. Who told you? A. Mr. Green and Mr. Wm. H. Davidge.

By Mr. DARLINGTON:

Q. Do you know anything about the payment of money by the Mutual Life to Mr. Miller? A. I know from the evidence that he was paid \$2,500 for his services in this examination.

By Mr. ABBOTT:

Q. While Mr. Miller was superintendent of the insurance department? A. Yes, sir; he was the superintendent.

Mr. SEWELL:

It was entered publicly on the books.

WITNESS—It came out on the Miller investigation.

By Mr. DARLINGTON:

Q. Do you know of the payment of \$3,500 made subsequently to him? A. From the testimony in that investigation I know it.

By Mr. ATWOOD:

Q. Whose testimony does it appear in? A. Mr. McCurdy's and Mr. Stewart's.

Q. Formerly vice-president of the company? A. Now vice-president, and Mr. Stewart.

Q. Was not that an investigation into the conduct of the officers of the company as to whether they had been faithful or not? A. That investigation was brought about by reason of a suit that I instituted against the company in 1870.

Q. You went where? A. I went to Albany; I had the complaint prepared in the name of the People of the State of New York, having been assured by Mr. Champlain that he would bring that suit; it had frequently been said to me, "why don't you bring these gentlemen into court?" I have always endeavored to bring them there, and I commenced that proceeding for the purpose of bringing them there; I had my attorneys, Martin & Smith, prepare the com-

plaint; I took the affidavits which verified that complaint, and took them to Albany.

Q. To Mr. Champlain? A. Yes, sir; and in the presence of Judge Allen, who was then retained as counsel of the Mutual Life, and John V. L. Pruyn, both, those papers were submitted to the Attorney-General, and after hearing both of us, they on behalf of the company, and I advocating the signing of that complaint, he announced the fact that he would sign it; he sent it to me a short time afterward by Mr. Hammond.

Q. He was the deputy? A. Yes, sir; and I verified that complaint, and Mr. Hammond pocketed it and disappeared with it; I never doubted what he did with it, although I have no information, but immediately Mr. Miller announced his intention to make an examination of the company, as I understood, at the request of the trustees of the company and its officers; I then asked to be allowed or authorized by Mr. Miller, under the power vested in him by the laws, to enter into that examination; before he gave me his answer in regard to that, I received the appointment from the legislative committee to make the examination; I should state that that appointment was accepted by me, with the knowledge and approval of one of the trustees, who was then in Albany, and with the knowledge of Judge Allen at the time it was to be conferred; it was entered upon in the presence of the officers of the company and Mr. Miller himself. It was the desire, at that time, of a large number of policy holders and myself to have these matters finally settled, and settled in a court that had authority and provided with proper remedy, that our funds should not be squandered thereafter.

Q. That suit was never commenced, was it? A. No, sir; he never brought the suit: he pocketed all the papers, and it was ended.

Q. You have never been able to get your complaint back, have you? A. No, sir; and never able to get any satisfactory answer of what was done with it.

By Mr. ABBOTT:

Q. Who held these papers? A. Mr. Hammond, the last that I saw of them.

By Mr. DARLINGTON:

Q. Do you personally know anything about the policy that was issued on the life of Mr. Ganston? A. I know it from information that I had derived.

Q. Will you give us the name of the person? A. Mr. James Edward Ganston.

Q. That was a policy on his life? A. Yes, sir.

Q. Do you know who represented him in the application to the company? A. Represented the heirs?

Q. Yes. A. Mr. Sewell, I understood.

Q. Prior to Mr. Sewell's being retained, do you know to whom their interests were committed? A. Mr. Perry and Mr. Cole.

Q. What were their first names; how can we find them? A. They are both of them residents of Jersey City—Perry and Cole.

Q. Had Mr. Charles F. Reeks, 60 Wall street, have anything to do with it? A. I believe Mr. Reeks acted as the friend of Mrs. Ganston.

Q. You have stated, in this letter which appears over your signature, other charges were made, such as the withholding of post-mortem dividends from the representatives of deceased policy holders? A. Yes, sir.

Q. What do you know about that? A. That is a fact; they were withheld.

Q. Have you the names of the parties? A. There were a number of them.

Q. Do they appear? A. Some of them do, but not all of them; the charter requires that a dividend which is earned by the payment of premiums just preceding the death shall be ascertained subsequent to the death and paid; and that was withheld; and that formed one of the items of objection to the auditing of the account by Mr. Homans; they were withheld by order of the president, as was testified.

Q. Have you any knowledge of the amount so withheld from policy holders? A. No, sir; I did not go into that; my object was to ascertain whether, in violation of this express direction of the charter, such things had been withheld, and I ascertained that such was the fact; the object in making the investigation was to ascertain to what extent the officers of the company would violate the charter, and the by-laws and regulations of the company, and when I found facts I didn't care to go into details; I got enough to fortify them.

Q. Do you know anything about a Mr. Little, an agent who was imprisoned? A. I knew a Mr. Little.

Q. I mean put in the asylum? A. I knew of a brother-in-law of Mr. McCurdy.

Q. What was his name? A. Francis H. Little.

Q. Will you tell the committee the facts in respect to the commissions paid to him, in your own way? A. He was the agent of the company, and there was a very large amount of commissions paid to him as agent; the gross payments to him—

Q. Was about how much? A. Out of which he defrayed office expenses and so on—

Q. Where was his nominal office? A. I believe it was next door to the company.

Q. Where was he during this time when this money was paid? A. During a large portion of the time he was in the Bloomingdale Asylum.

Q. Will you give us the dates of his several commitments to and discharges from the asylum, and the amount of money paid during that time? A. I have got the record; in making the examination in regard to Mr. Little, I was drawn to it by charges made that Mr. Little had been continued as an agent of the company at the time that he was insane, and I examined the records of the Bloomingdale Asylum, and found that he was admitted there on the 18th December, 1867; he was discharged at sundry times, and back again; for instance, discharged 16th January, 1868, and back the 30th of May, 1868; discharged in June, 1868, and back in January, 1869; discharged 27th February, and back in April; discharged 7th of May, and back again in June, and finally removed on the 2d July, 1869.

Q. Removed as cured? A. The statement made to me there, which I have here—he was never discharged as cured, but was removed from time to time by his relatives; I regarded Mr. Little as a totally unfit agent to be kept in such a corporation as the Mutual Life; or that any officers were justified in retaining him in their employment, even though it was a nominal employment, made whilst he was a lunatic.

Q. Will you give us the amounts that were paid to him during the time, from the commencement of his imprisonment there, by the Mutual Life, down to his discharge? A. During the time that he was actually in the asylum, in his own account, it was about \$26,000.

Q. Paid him? A. About \$26,000.

Q. Paid him out of the funds of the Mutual Life? A. Yes, sir; that is the gross payment.

Q. And part of that—? A. That is the gross commissions, and part of that would necessarily go to the expenses of his office.

Q. And to the sub-commissions? A. Yes, sir.

Q. Will you tell the committee if there were any other amounts?

A. There were subsequent amounts paid, but they are mixed up between his account and his brother's account.

Q. I don't care to go into the details about that; will you be kind enough to tell the committee if policies have been altered, so as to give commissions to the president's family? A. Not policies.

Q. Applications? A. There were of applications.

Q. Donald G. Mitchell; can you tell us about his policy? A. There were two applications made by Donald G. Mitchell for policies of insurance, which applications had been altered in such a way as to give the commissions to some member of Mr. Winston's family; Mr. Winston's son James appears; his name appears as the person who procured the insurance, and is entitled to the commissions; he testified that he did not himself get it, but that the alteration of the application was in the handwriting of his brother, the former cashier.

Q. The one who died? A. Yes, sir.

Q. Will you be kind enough to tell us as to the practice of allowing commissions to officers on their own policies? A. Commissions were taken on their policies by Mr. Winston—on his own policy—and also by Mr. McCurdy.

Q. Commissions as if they had procured them as brokers? A. Yes, sir; that is claimed to be a custom of the trade, as Mr. McCurdy expressed it, in the insurance companies.

Q. Have you any means by which you can tell us what policies were issued on Mr. Winston's life? A. I didn't see Mr. Winston's policies; you will find that evidence here.

Q. Will I find the number of his policy, or the amount of it, in the book? A. No, sir; only the fact that he had taken commissions; on Mr. McCurdy's I had a memorandum of the policies, and the brokerages that he received as commissions.

Q. I have here a copy of the Insurance Times extra, containing some articles that purport to have been published by you; I want to know if you published an article in the Herald of December 10th; I will produce these as exhibits before the committee? A. Yes, sir; I will say about this that this is not correct in some respects; I have copies of letters, which were probably—which are correct.

Q. Will you be kind enough to produce them? A. Yes, sir; *there* are two; one on the 10th of December, and one on the 18th; *there* is one on the 29th of January; *here* is one that is addressed to Mr. Frederick S. Winston personally on the 15th February.

By Mr. ATWOOD:

Q. Is that 1873? A. Yes, sir.

Mr. DARLINGTON:

I would like to have these marked, and produced as a part of the minutes of the committee.

The letters of December 10th and 18th, 1872, were marked "Exhibit 1, April 7th, 1873."

The letter of February 15th, 1873, is marked "Exhibit 2, April 7th, 1873;" letter of January 29th, 1873, marked "Exhibit 3, April 7, 1873."

They are as follows:

From the New York Herald of December 10th, 1872.

MUTUAL LIFE INSURANCE COMPANY OF NEW YORK

To the Policy Holders:

It is well for you that the late action of the Mutual Life, in reducing its rates, has become a subject of public discussion, and aroused the attention of its policy holders throughout the country, for it is time that you looked after your interests there with fidelity to yourselves, and the determination to discharge your own duty in the premises. The temple was built by the policy holders; should be dear to them, and they should not allow it to be profaned by unclean things. There is work to be done, and you are the ones to do it; and as a fellow policy holder who has striven earnestly against what he knows to have been mismanagement and infidelity in that Company, I hope by this communication to arouse your energetic co-operation in proper efforts to rescue our interests from the control of unworthy custodians.

I shall speak to you only of that which I know; that which has been proven from the records of the company and by witnesses under oath; that of which I possess the undoubted evidence, and which can be established in any fair tribunal in the land.

In the Herald of Saturday last appeared a letter over the signature of Mr. George S. Coe, a trustee of the company, wherein he uses the following language in relation to charges of infidelity against President Winston:

They have all been long since made the occasion of the fullest investigation by the trustees and by the legislative committees, and have resulted in nothing sufficient to impair confidence in his character as a safe custodian of so high a trust. The trustees have again and again expressed this opinion of his fidelity. The present eminent position of the Mutual Life Company is, in their opinion, the most unanswerable testimony of his zeal, fidelity and efficiency as an officer. I can only reaffirm, in the strongest terms, as an individual member, what the trustees have unitedly done under their

signatures, that the company is in the best possible condition for the security of its members."

The "eminent position of the Mutual Life" is far better evidence of your liberality and prosperity than of President Winston's eminent ability or fidelity. Without you it would have been nothing; without him you would have been better off, as you will presently see; and being informed of some of the facts which the "investigations" referred to have disclosed, you will be able to determine for yourselves what must be the standard of fidelity and probity by which these trustees have measured the character of President Winston.

President Winston was charged with having illegally loaned a trustee of the company \$30,000, and that he had concealed the loaning by a false statement to the finance committee.

It was proven that the \$30,000 was furnished to the trustee, June 30, 1864, and returned by him, with interest, July 15, 1864, and that the transaction was, for a time, concealed by means of a false statement, prepared by a clerk, under the direction of President Winston, and delivered to the finance committee. President Winston claimed the transaction to have been a purchase and resale of government securities; but the weight of evidence shows that, from its inception to its liquidation, it was a temporary and illegal loan, and its concealment gave evidence of conscious guilt.

It was charged that he had furnished certain State agents with large sums of money without authority, and illegally, and had concealed the fact by falsely representing the funds so used to be "cash in the cashier's drawer."

The facts that he made such use of the funds of the company in his individual capacity—at one time to the extent of \$18,491.86; that he had no security other than the individual responsibility of the persons whose drafts he paid; that no record of any kind appeared on the books of the company relating to those transactions, but that they were concealed in the manner charged, were all fully established.

When these things first became known, they were investigated by a committee of trustees. The facts were proven or admitted, yet the majority whitewashed them. One member, however, with courage and fidelity, denounced them as "intentional and designed deceptions," and "deserving of serious condemnation."

When unauthorized, illegal and secret transactions were thus brought home to him; when he not only made false representations himself, but induced his subordinates to do so, the trustees should surely have found therein evidence of something other than "fidelity, as the custodian of a high trust."

President Winston was charged, together with other officers, with having received large sums as "bonus," which were illegal, and a grievous wrong upon the policy holders, and concealed from them by charging the payments to "dividend account."

The statement in my possession, made and sworn to by the book-keeper of the company, shows the total payment of such bonus during the years 1867 to 1870, inclusive, to have been \$189,822.94; and it was proven that this enormous sum was charged as dividends paid to

policy holders, thereby concealing its payment from them; from many, if not most, of the trustees; making an actual expense to the policy holders appear to have been a distributed profit to them, and falsifying the ratio of expenses of the company. Of this sum, Mr. Winston and his sons received \$63,696.89. Remembering that all this amount was superadded to the ample salaries paid the officers, can you believe that any commensurate service was rendered, or can you absolve the trustees from severe censure for permitting your money to be thus lavishly bestowed?

It was charged that three policies of insurance on the life of president's son were illegally restored and paid, after his death, and that their restoration was procured by Vice-president McCurdy, through a concealment of the truth.

The facts, stated briefly, are these: F. M. Winston, formerly cashier of the company, insured his life July 1, 1859, for \$2,500 (policy No. 22,146). On the 2d of October, 1862, he surrendered it, and received its cash surrender value.

On the 22d of September, 1862, he insured again for \$4,000 (policy No. 27,286), which he surrendered February 15, 1864, receiving the cash surrender value.

Thus both of these policies were surrendered, paid for, and no longer binding in law or in equity.

Again, on the same 15th February, 1864, he procured a policy for \$5,000 (policy No. 30,964). On this policy not one cent of premium was ever paid, for the first quarterly premium was simply credited by cash-book entry to "premiums," and offset by a debit of the precise amount to "brokerage," and no other premium was ever paid. This policy was forfeited, as the record shows, on the 28th of November, 1864, for non-payment of premiums, and so entered in the policy register.

On this 28th day of November, 1864, all his rights as a policy holder ceased, by his failure to pay his premiums. In the month of July, 1866, nearly two years after the forfeiture of this last policy, he died. Vice-president McCurdy, by withholding the facts from the members of the insurance committee, as two of them were forced to admit under oath, procured the passage of a resolution restoring all three of these policies, amounting to \$11,500, with additions of \$733.83, upon payment of "back premiums and interest." And a policy (No. 56) for \$12,000, payable in semi-annual installments, was issued, and is now being paid to the heirs.

The gross illegality of this transaction, and its outrage of the rights of the policy holders, need no comment from me. The plea of poverty and eminent services, since advanced in justification of this transaction, is not only a pitiable excuse, but it is unfounded.

Some other policies were shown to have been illegally restored, or improperly purchased, but the above is probably the most glaring abuse ever perpetrated upon the policy holders of a mutual company.

It was charged that large sums of money were used at Albany and elsewhere to influence legislation, and falsely charged as "taxes." It was shown from the books that over \$15,000 was so charged to taxes,

out of which one noted politician of this city received \$6,000, and that \$2,500 so used was charged to "office rent" of an agent. But the officers strenuously and successfully resisted all efforts to ascertain the true objects and purposes for which these expenditures were made, pretending that it was to prevent taxation. Some of it may have been, but the report of the chairman of a legislative committee would seem, from the following extract, to have had reason to think otherwise:

"Your committee believes that at no time, since the Insurance Department was organized, has it been necessary to use money to secure the passage of just and proper laws to further the best interests of insurance, whose humane purposes, when rightly carried out, commend it to the good-will of all. The fact that such large sums have been thus used in an illegal manner discloses not only corrupt and selfish motives, but an abuse of the various trusts reposed, which must sooner or later destroy all confidence and effect the overthrow of the entire insurance interest as at present administered."

Other charges were made and proven, such as the withholding of post-mortem dividends from the representatives of deceased policy holders, thus depriving them of thousands of dollars to which they are legally and equitably entitled. But I have probably given you enough already, and I therefore pass on to a matter of the greatest importance to you; one, as I believe, involving the safety of your interests in the company. I refer to the proxies held by President Winston and Vice-President McCurdy. Every holder of a policy of \$1,000 or over is entitled to one vote for trustees. Through the agents selected by themselves, these officers have gathered and hold enough proxies to prevent the possibility of electing any trustee not of their own selection, and to turn out any who oppose or thwart them. This is a most dangerous power to possess, and, where millions of dollars are involved, no two men living should be so intrusted and so tempted. They have used the power before, and will most certainly do it again. True, it has been done skillfully, shrewdly, and with professions of disinterested devotion to your best interests; but do you believe that any set of men, even those so high in social and business life as many of the trustees of the Mutual Life are known to be, when thus at the mercy of those whom they should direct and control, can act with that independence and firmness which alone can insure the safety of your interests? I know that they cannot, and that they do not. I also know that many of them perform their duty in a most perfunctory manner; and I also know that some in that board are not worthy of your confidence. These are hard things to say, but they are true. I have been, and shall doubtless again be, soundly abused, called blackmailer, accused of improper motives, warned not to publish the evidence in my possession, and which the officers sought to suppress by copyrighting it; but I believe that the day is now dawning that will arouse you to the performance of your duty, and by the light of which you will see things in their true colors: that you will ere long insist and enforce that the affairs of that corporation shall not be examined by com-

mittees of trustees appointed to whitewash ; not by a corrupt State superintendent, who pockets his \$2,500 fee for not seeing ; not by a committee wined, dined and entertained to a proper degree of faith in their entertainers ; but by those of your own selection—capable, honest and fearless—sent there to get at the truth, and the whole of it, and make it known to you all. When that is done, I dare assert that you will not indorse the opinion of Mr. Coe, nor consider that the “eminence of the Mutual Life” is sufficient guarantee of the officers’ fidelity, but rather that you will agree with me that it has become “eminent” in spite of them.

It is your imperative duty to revoke at once the proxies you have given these officers, and to resume the control of the election of trustees by placing your proxies in the hands of those whom you know to be trustworthy, and independent of all connection with the officers, their agents or coadjutors. Then to replace those whom you find derelict and unfaithful by trustees who are not afraid to see things as they are, nor to call them by their true names ; who will brook no unfaithfulness and tolerate no wrong, and who will conscientiously labor to place the “Mutual Life” above reproach. Then, and not till then, will you have performed your duty to yourselves, and to those whom you are striving to protect from want when you shall have been called from this world.

JAMES W. McCULLOH,

60 Beaver street.

NEW YORK, *December 9th*, 1872.

From the New York Herald of December 18th, 1872.

THE MANAGEMENT OF THE NEW YORK MUTUAL.

Fellow Policy Holders :

During the past week hundreds of you united in the protest against the reduction of rates by the Mutual Life, and the remonstrances are still coming in large numbers. No action had been taken upon them, but so great was the pressure brought to bear upon the officers of the company, by the opposing life companies, that after frequent and earnest conferences, what we may call the “Delmonico Treaty” was finally arranged and executed by the high contracting parties on Friday last ; and on Saturday, after a protracted meeting, the board of trustees decided to suspend, for the present, the contemplated reduction in rates ; and you have in the daily papers of to-day the announcement of the capitulation of the Mutual Life, couched in the language of the adept insurance diplomats who negotiated the treaty. Without pausing to discuss the alleged reasons for this action by the Mutual Life, and merely calling your attention to the fact that it suspends, and does not finally determine the matter, I pass to my present purpose of preparing you for the efforts which will doubtless now be made to frown down criticism, and divert your attention from matters of mismanagement in the affairs of that company.

It has been said, with much truth, that "one of the greatest dangers connected with the management of life insurance companies in this country has been immunity from criticism on the part of the policy holders." This arises in no small degree from the fact that the influence of these wealthy corporations has become so powerful and widespread that most policy holders shrink from incurring the hostility which adverse criticism inevitably arouses, and acquiesce in or submit to that which they would otherwise unhesitatingly condemn and oppose. Furthermore, those upon whom such criticism bears, are ever ready to torture it into an attack upon the business, principles and vast interests involved in life insurance, and thereby to alarm the policy holder and divert his attention from their own misdeeds. None understands this mode of defense better, or can use it more adroitly, than the chief officer of the Mutual Life. But, through your liberal contributions, the solvency of the company is so well assured, and its position so well established—despite the shortcomings of those who control its affairs—that you may not only safely dismiss all fears that it can be injured by criticism or investigation, but it is your duty to yourselves and to those whom you seek to protect by the insurance of your life, to root out everything that is corrupt and wrong in its management, and to evince your determination that, unless its affairs are conducted honestly, and in full accord with the spirit of the trust which you have created, you will fearlessly and thoroughly expose those who are derelict, and award them the full measure of punishment they may deserve. Two years ago, when an effort was made to arouse you to a just appreciation of the infidelity of the officers of the Mutual Life, corruptible men controlled the State offices, and the public feeling had not yet ripened; but the spirit of reform has been so awakened by the disclosures of corruption in high places, and of the evils which have wielded such baneful influence in matters of public trust, that I believe your minds are now disposed for the reception of the truth with regard to some of those who have controlled the affairs of the Mutual Life; and that you will unite in every proper effort to eliminate from that management everything that tends to endanger its safety or to impair its fair fame and credit.

In a previous letter, I gave you, in brief, some of the well-established facts, inculcating the officers in transactions inconsistent with fidelity and morality, and can give you more. I can show you how applications were altered by members of President Winston's family to secure brokerages they had not earned; how a lunatic brother-in-law of Vice-President McCurdy was placed in a most lucrative agency of the company, and his employment continued, and thousands of dollars paid for his alleged services, when he was actually confined in the Bloomingdale Lunatic Asylum; how, by a fiction of book-keeping, millions of dollars previously credited as income in the books of the company, were again included as "actual cash" receipts of subsequent years, to affect the apparent ratio of expenses of the company, and of other acts; but my present object is to show you, by a few brief examples, how the trustees have dealt with these transac-

tions, to enable you to determine for yourselves how far you may safely rely upon the trustees to correct similar abuses.

I have told you of the \$30,000 loan to a trustee, and the false statements resorted to by President Winston to conceal it from the finance committee. The committee of trustees appointed to inquire into that transaction were, Lucius Robinson, Alexander Bradford, John Wadsworth, David Hoadley and William Smith Brown. All of them signed the "statement of the facts," in which it is stated that when the \$30,000 was returned, "the clerk making the weekly statement to the finance committee at first entered it separately as so much received for United States certificates. He subsequently, by direction of the president, erased the entry, and placed the amount with the general statement of receipts from premiums." Thus, by direction of the president, the clerk falsified the weekly statement; and yet, with the fact so distinctly stated by themselves, all, save Mr. Brown, reported that, "in respect to the management of our affairs with integrity, fidelity and efficiency, the committee have found nothing to condemn, and much to praise." Mr. Brown found evidence of intentional deception, and refused to join the others; and it will doubtless be surprising to all who know the pre-eminent position in social and religious life which Mr. Hoadley has attained, that, with this evidence of the utterance of a deliberate falsehood by President Winston for the concealment of an improper transaction, he did not concur with Mr. Brown.

With regard to the restoration of the policies on the life of President Winston's son, the testimony of Messrs. William Betts and William H. Popham—both honorable and truthful men—clearly shows that Vice-President McCurdy, partly by withholding and partly by misrepresenting the facts necessary to guide them in the proper performance of their duty, procured the passage of a resolution which accomplished a purpose entirely at variance with their understanding, and donating ten times the amount that was intended. Yet, with the evidence that they were thus deliberately deceived by him, both acquiesce in his retention in office. And with regard to this transaction, Mr. Lucius Robinson, in a letter written and widely distributed by the officers, after the truth was fully established with regard to these policies, states, "as facts in the case," that young Winston was compelled to abandon his policies from poverty; that "he supposed his salary (only \$2,750 at the highest point) would enable him to keep his policies up," but that the "insurance committee, finding that he had been forced to abandon his policies because we did not pay him a salary sufficient to support him," at once recommended the "restoration of his policies upon payment of back dues and interest." Now, the testimony of the two members of the insurance committee above named shows that they acted upon no such information, and the records of the company show that instead of being paid "only \$2,750 at the highest," his salary had been \$3,000 per annum, and was continued to be paid after his death in July until the end of the fiscal year on the 1st of February following, with twenty per cent. additional; and that on the

9th day of March preceding his death he was paid \$3,750 "bonus," and that over \$200 as "brokerages" was paid him by the company in 1864 and 1865, which would have served to have kept his \$5,000 policy alive. Furthermore, the accounts of his administrators show that they received, August 16th, 1866, from the Mutual Life Insurance Company, \$3,727.95, amount of insurance on life of said F. M. Winston, and which was not derived from the restored policies in question. Thus the evidence completely invalidates Mr. Robinson's statements. And when President Winston, on the 12th of July, 1869, requested a committee of trustees, composed of J. V. L. Pruyn, William E. Dodge, Henry E. Davies, Oliver H. Palmer and David Hoadley, "to ascertain whether any injustice or wrong has been done the company, or any departure has, in this case, been made from the fixed policy of the company in cases of similar nature," the chairman of that committee reported that the "action of the insurance committee and board had been unanimous in this case, and in conformity with many other precedents." You will be, doubtless, greatly surprised that such a transaction was in "conformity with many precedents," and also that a most energetic effort subsequently made by the officers utterly failed to produce a single one of such "precedents." Great surprise has been expressed that Mr. William E. Dodge should have concurred in that report, and it can hardly be possible that he had fully informed himself of the facts; yet his name has again and again been given as authority that this transaction was justifiable, and in accordance with the practice of the company.

And now hear what a trustee testified to with regard to the \$189,000 bonus business to which I alluded in a previous communication in the Herald. Mr. William Smith Brown testified that when the report of the committee was made, recommending the payment of the bonus to the officers:

"It produced considerable discussion in the board, but was adopted at that meeting, if I remember right, with the strongest minority vote that I had ever seen up to that time in the board. It was to my mind perfectly apparent who the men were who voted for and voted against it, although the yeas and nays were not taken. Every man who received payment for his services, through the officers of this company, every attorney, every man who had a bank account, with perhaps one exception, all men who were deriving benefits, voted for it. The men who had no connection of the kind with the company, who were perfectly free and independent, were those who voted against it. Still it was carried. Subsequently I proposed its repeal, and, if my memory serves me right, I was induced at the request of Judge Bradford to postpone the matter—to let it lie over. I asked Judge Bradford whether the bonus was intended to be put upon the February dividend; and told him that, if it was continued to run with the dividends, I should agitate its repeal. He pledged me his word that it should not. I therefore paid no more attention to it. I knew that it was in his power, if he chose, to stop it. I was for two or three years in entire ignorance of the fact that it was con-

tinued, for it was charged to 'dividends,' and buried up entirely!"

And he gives the following account of its final repeal:

"Happening to be here at the annual meeting previous to the repeal of this, I was struck with the motion of Mr. Brady, moving that twenty per cent be paid upon the salaries to clerks. I said to a friend, after we left the board 'why were not the officers included?' That led to my investigation, and I found that these bonuses had been continued. I then determined to secure their repeal, and I waited until I saw a chance to get my motion in. I didn't dare to agitate it, for if I had it would have been killed dead. I therefore produced my resolution without consulting. I think there were but two members of the board who had any knowledge of my intention to offer it. It led to a motion from Mr. Sproulls to lay my resolution on the table. A vote was taken on that motion, and notwithstanding that the president and vice president both sat there and voted upon that motion of Mr. Sproulls, we carried it by one, I think. Had there been another officer there, we would have lost it. That led to the appointment of a committee, who reported in favor of its repeal unanimously, and their recommendation passed with but one dissenting vote, and that vote was Lucius Robinson's I believe!"

This evidence gave rise to bitter feeling against Mr. Brown, but it was not invalidated by all that was produced in rebuttal.

These facts will give you some insight into the internal arrangements of the Mutual Life, which will doubtless be very distasteful to those who have heretofore been successful in their efforts for concealment, and who concur in President Winston's opinion that "there has been far too much leakage" as to the conduct of its affairs.

I may also have trespassed so far as to hazard the enforcement of Mr. Attorney Sewell's threat to me that "the publication of any part of said 'examination' will be prosecuted by the company to the full extent of the law." But you now can form some opinion as to the correctness of my belief that the affairs of that company are too greatly controlled by a small minority of active, shrewd self-seeking men, "who are receiving benefits," and whose tenure of office can only be curtailed by the vigorous and united efforts of the policy holders.

To rid ourselves of such men, and to arouse those reliable gentlemen in that board who, I believe, can and will unite in bringing about the needed reform in the Mutual Life, is now the problem before us, and upon which I next propose to address you.

JAMES McCULLOH,

60 Beaver street

NEW YORK, December 16, 1872.

From the New York Herald of February 15th, 1873.

THE MUTUAL LIFE INSURANCE COMPANY.

ANOTHER SCATHING LETTER FROM MR. McCULLOH.

To Frederick S. Winston, Esq.:

MY DEAR SIR.—In all my publications and public addresses concerning your connection with the Mutual Life, I have hitherto spoken as one of its policy holders dealing with its official head. But I am now justified in addressing you personally, by reason of the charge contained in your affidavit submitted by counsel in your libel suit against Stephen English, editor of the Insurance Times, wherein you use the following language: "And this deponent, on his oath, charges that the defendant, English, has entered into an illegal conspiracy with one James McCulloh (meaning me) and other persons unknown, to annoy, vex, harass, defame and libel this deponent, and that said McCulloh has furnished to the defendant the principal part, if not all of the matters" about which you were to have been examined under oath, upon the order granted by Judge Barbour.

If I am correct in believing that the natural concomitants of such a conspiracy, and those by which it would be most certainly indicated, are cowardly stealth and concealment, I may safely rely upon a statement of facts and a recital of the occurrences of the past four years to establish the groundless nature of your charge.

When Stephen English was your friend and champion, my opposition to you brought upon me his threats of personal violence, and up to the hour you caused his arrest and imprisonment in default of excessive bail, I was not kindly disposed toward him, and had repeatedly refused to furnish him the details of your malfeasances. Neither am I now his advocate nor defender; but I am, and I trust I ever shall be, ready and willing to furnish the ends of justice and the cause of truth, and to permit my head to yield something to my heart when power, opposing weakness, savors of oppression.

Hence, when after the arrest of Mr. English his counsel applied to me for information to aid in eliciting the truth from your own mouth, I gave what was requisite; and I shall continue to do so to the full extent that it can be honorably, manfully and legally done. And I will add that in this matter I much prefer my position to yours; for your resort to legal formalities to evade the order to examine you on oath betokened a want of confidence in the truth and justice of your cause, and an unwillingness even to intrust its maintenance to evidence sought from self exonerating and self justifying lips.

And now let me recall the occurrences of the past four years, in answer to your charge of a conspiracy to annoy, vex, defame and libel you.

In the early part of 1869 I first became aware of infidelities which forced the conviction upon my mind, and upon that of able legal advisers, that both Vice-President McCurdy and yourself lacked that

high order of integrity and moral rectitude which your trust demanded, and that you were therefore unfit custodians of its funds. I, also, then first learned that you had possessed yourselves of proxies sufficient to control, at will, the selection of trustees of the Mutual Life; a power, in my opinion, far too dangerous to be intrusted to any two men, and much less to those whose record showed an inappreciation of their sacred obligations to the beneficiaries of their trust.

Impressed with such convictions, and strengthened therein by competent advisers, my interests as a policy holder gave me the right, and my obligations, as well to my fellow policy holders less informed than myself as to those for whose benefit my own life is insured, imposed upon me the duty to maintain my convictions and render them effective. Fully aware that reform must act as a punishment to you, and that I should not only incur the enmity of yourself, but of many of your advocates and friends, and that your enmity would be all the more bitter because obliged to conceal the true cause of your resentment, I, nevertheless set about my work, and have wrought wherever and whenever I believed my labors would prove effective.

In March, 1869, I commenced proceedings in the Supreme Court of New York against the Mutual Life Insurance Company and Richard A. McCurdy. At first, the allegations of my complaint were denied *in toto*, and an effort made to induce my counsel to discontinue. Failing therein, I was then approached by gentlemen well known to me, one acting as the representative of the Mutual Life, and the other as the friend of Mr. McCurdy, and urged to desist, lest I might damage the fair fame and welfare of the company.

After protracted interviews, in which the truth of some of my allegations was admitted, and that of others qualified, I consented to discontinue the suit upon conditions which those gentlemen acknowledged were honorable and just. Mr. McCurdy's friend paid all counsel fees and costs, and the suit was discontinued. But the faith of that settlement was not kept, and I shortly learned of other matters justly censurable.

Before the election of June, 1869, I called on you, in company with Mr. Trustee Popham, and urged you to permit the policy holders to nominate four of the nine trustees to be chosen at that election, such nominations to be submitted to and approved by you. You refused, alleging, in substance, that you did not intend to permit any changes in a board which you knew to be friendly to your management. In that election I took a prominent part in opposition to you, aided by many policy holders; not anticipating success, but expecting to establish the nature of your control over the elections. In this we succeeded, for in that election you required every voter to put his name upon the back of his ballot, an outrage upon the freedom of election by ballot, which even caused some of the trustees to hesitate and reflect upon their votes in anticipation of subsequent scrutiny, and the instant that the opposition appeared to be gaining on you, Vice-President McCurdy placed your success beyond contingency by depositing, without objection from your inspectors of election, and

in one batch, more proxy votes in five minutes than your opponents could have cast in as many hours; and you know to whom I allude when I remind you that in that election you forced upon us one whom you have since admitted was unworthy of the trust.

Immediately after that election of 1869, a committee of trustees was appointed to examine and report upon the affairs of the company, and I then asked that a policy holder, to be chosen at a public meeting, be permitted to unite in that examination. This was refused. That committee of trustees declined to inquire into the charges against you, and reported—what no well-informed person had ever questioned—the assured solvency of the company, and concluded with an eulogy of your great ability, and devotion to the interests of the company. That report was handsomely printed and widely disseminated at our expense, and for a time accomplished its intended mission.

In August, 1869, I was requested, and consented, to unite with others in obtaining the intervention of the Attorney-General of this State, and furnished to legal gentlemen of high standing in this city information whereupon to base a complaint, and also gave the attorney-employed an affidavit of facts then within my knowledge. Learning of my action, you sent for me, and denounced that attorney—whose character was, until then, unknown to me—and urged me to withdraw. I immediately made inquiry, and, being satisfied of the truth of your denunciation, I instantly withdrew, and informed you of the fact.

In February, 1870, my own counsel prepared a complaint against yourself, Vice-President McCurdy and some of the trustees of the Mutual Life, in behalf of the people of the State of New York, which complaint, together with accompanying affidavits, I submitted to Attorney-General Champlain at Albany. After a careful examination and protracted interview (in the presence of Mr. John V. L. Pruyn, the oldest and one of the ablest trustees of the company, and of Judge Allen, the then Comptroller of the State, and retained as counsel of the Mutual Life) the Attorney-General signed that complaint, considering "the papers placed in his hands officially such as to justify proceedings against the company." He subsequently sent the complaint to me by his deputy, Hammond, and I verified it. Hammond pocketed it and disappeared, and it was never again seen by me.

The newly appointed Superintendent of Insurance, Miller, was then induced by the representatives of the company to undertake an examination of its affairs; and I immediately requested that, by virtue of the power vested in him by the laws of this State, he would authorize me to unite in that examination. But before he decided upon my application, I was requested to act as the representative of the Insurance Committee of Assembly, then inquiring into the affairs of the Mutual Life, and I accepted the duty with the knowledge and approval of one of the most worthy trustees of the company, and with your own subsequent unofficial concurrence.

I entered into that investigation with the determination to elicit the truth, if possible; and, as you know, I spared neither time, labor

nor feeling to accomplish that object. I then obtained information which strengthened, intensified and justified my opposition to your retention of office. Upon the adjournment of the Legislature, my power ended, and the records were closed against me; but I had obtained evidence of such a character that, in the name of the Mutual Life, you attempted to suppress it by copyrighting the superintendent's copy of the testimony, and threatening me with prosecution for infringement if I dare publish the whole or any part of mine. But upon the last day of that examination, I had declared my purpose to "make such use of it as any honorable man would make of testimony, and that I was under no obligation to close my mouth as to the truth I found therein." And believing that the intent and purpose of the copyright law is to induce and protect publication, and not to aid in the suppression of valuable information, and failing to discover how the Mutual Life could obtain such proprietary right as that law requires, over fruits of my labor, I have heretofore, and shall hereafter, disregard your warning, and hazard your prosecution, by using that evidence wherever and whenever it will, in my opinion, accomplish good results.

I have done so in publications, and in public addresses in Boston, Baltimore and New York, in the presence of your trustees, advocates and counselors, and have commented upon your official conduct openly, frankly and freely, striving to be fair and just, and meaning "nothing to extenuate, nor set down ought in malice." And thus for four years have I openly and avowedly opposed you in the interest of a reform which you have naturally, and in a great measure, successfully resisted, and I have done it despite the great power you wield, and your repeated attempts to torture my opposition into an attack upon the company; despite the opinions of that vast majority who naturally adhere to the powers that be; despite the frequent certificates of good character put forth in your behalf by the board of trustees; despite the disgraceful evasion and perversion of facts in the report of Superintendent Miller (for which you paid him \$2,500, and wanted to give him more of our money, and which you advertised, at heavy expense to us, to bolster up your reputation); despite the readiness with which some worthy men have accepted misrepresentations and published them as facts; and with an abiding confidence that the day would come when the truth would assert itself, vindicate my action, and wrest the policy holders' interest from your grasp. If such opposition as this is characteristic of "conspiracy," then, and then only, am I a conspirator.

Thus much I deem it due to myself to have said, and due to my fellow policy holders, whose interests are identical with my own; and I shall presently state the facts which justify my opposition to your official relation to the Mutual Life, and which you must successfully refute, or allow moral judgment to be entered against you by default.

Respectfully yours,

JAMES W. McCULLOH,

60 Beaver street.

NEW YORK, Feb. 11, 1873.

From the New York Herald of January 29, 1878.

THE MUTUAL LIFE INSURANCE COMPANY.

Fellow Policy Holders :

The Mutual Life, by temporarily abandoning the contemplated reduction in rates, has, for the time, quieted the opposition of the other life companies; and now, to allay apprehensions of its policy holders with regard to the fidelity of the officers, it has taken the initiatory steps for the rehearsal of a performance neither new nor patent to that company.

It is customary therein to have annual audit made by a committee of trustees, and this year a committee of four gentlemen, from among those termed by President Winston "outsiders," have been invited to unite with the four trustees in making this audit, and to examine into the affairs of the company, and their report to be duly published for your edification and tranquilization.

If we may judge from past experience, there is little to hope from, in the way of reform, from any committee of trustees; and if it is true, as I am informed, that Mr. John Wadsworth is one of the present committee, we can readily conjecture what his report will be. He was one of the trustees who investigated the charges made against President Winston in February, 1865, by Mr. Isaac Green Pearson, and, after stating over his own signature that a clerk, "by direction of President Winston," had prepared a false statement for the finance committee, to conceal the illegal loan of \$30,000 to Seymour L. Husted, and that the charge of W. Pearson that President Winston had "secretly used a large amount of the company's money in paying drafts of State agents, and had concealed such use by representing the money to be cash in the cashier's drawer" was admitted to be true, he, nevertheless, united in a report that "nothing could be found to condemn, and much to praise," in such conduct of President Winston.

Neither does the result of the examination by the special committee of trustees in 1869 give us any better assurance of benefit from the present investigation. That committee failed to correct abuses then existing and still continuing; deemed it unnecessary to inquire into charges of wrong-doing, and whitewashed the officers in a most artistic manner.

And, as a general rule, in all corporations such examinations are seldom other than a solemn farce. When Fisk and Gould were charged with grave acts of malfeasance, they asked for a "searching examination" by a committee of Erie directors, who, in April, 1871, reported that, after thoroughly examining into the affairs of the company, their "confidence was undiminished," and they had found nothing wrong. Viewed in the light of present information, of what value was that examination?

When Tweed, Connolly and company were accused of grave offenses, they invited a committee of most estimable gentlemen to examine the city finances. None can doubt the integrity and sincerity of

those gentlemen, yet how completely they failed to discover the astounding frands which have since become so notorious! I cite these instances, not to charge that wrongs of proportionate magnitude exist in the Mutual Life, but to remind you by marked examples how futile such attempted investigations have been. And without any purpose to disparage the character, capacity or integrity of the gentlemen "outsiders" who may be prevailed upon to unite in the present examination, I hazard the assertion that their labors will prove equally fruitless. In the nature of things, it must be so. They are strangers to the affairs of the company, and cannot know where to look for or how to discover the irregularities which such adepts as Messrs. Winston and McCurdy too well know how to cover up and conceal. My own experience in examining into its affairs disclosed how difficult it was to get hold of the right end of their tangled threads; how skillful they are in that manipulation which Mr. Trustee Brown testified was one of his "most serious objections to the management of the company;" how fluent they can be upon all things deemed meritorious; how halting and staggering in statement, and defective in memory about all things unclear; how fruitful of fine distinctions to save the integrity of their acts, and seduce to that easy acceptance of exculpatory statements which was more creditable to the hearts than to the heads of the Boston examiners of 1870.

But let us suppose these gentlemen "outsiders" to have accepted the invitation to examine, and to have entered the portals. They will be most courteously received, well entertained in the hospitable lunch-room, shown through each department, introduced to its chief officers, and told of "admirable system of accounting;" shown the great clock, and assured that the "Mutual" now proudly rears its Mansard-head full eighteen inches above the "Equitable;" and finally, they repair to the elegant apartment in which the trustees hold their meetings. Here, surrounded by the imperial photographs of the past and present trustees, they seat themselves around the spacious table, and commence the labors of the "joint committee." The gentlemen "outsiders" will be waited upon with a civility bordering on servility, and abundance of explanation, sought and unsought, be given them about the work upon which they are engaged. If I mistake not, they will soon attempt to master, within the time they can afford, the technicalities and abstractions of the actuarial department, and will conclude to take its statements on faith. But they will carefully count the public securities, collate all the bonds and mortgages, test the accuracy of the statements of "cash in bank and trust companies," etc., etc. Everything intended to be there has, of course, been found; no clerical errors have been discovered in any of the statements carefully prepared in anticipation of this "searching examination," and they have reached the "net result" fully impressed with the magnitude of the company, and assured of its entire solvency. And now, methinks, I see approach that well-known and affable gentleman, Judge Henry E. Davies, trustee and counsel of the company, accompanied by Mr. Robert Sewell, counsel, inspector of elections, and "general utility man" of

the company. The genial judge cordially shakes hands all around—shakes twice with the gentlemen “outsiders”—expresses his great joy that they have taken so much interest in “our affairs,” and then he asks:

“And now, gentlemen, what will you have next? Anything and everything is at your service. We assure you that we desire this examination to be thorough and exhaustive, don’t we, Mr. Sewell? Charges of infidelity have been made against our most estimable president and accomplished vice-president, in whom it gives me the greatest pleasure, gentlemen, to assure you the trustees have the greatest confidence, haven’t they, Mr. Wadsworth? You, of course, know that our president is connected with the Bible Society and deeply interested in missions; that—well, in fact that he is so widely and favorably known for his charity and benevolence, that I am sure the evidence you have just had of the eminent success of ‘our company,’ under his able management, has fully satisfied you that the charges against him are the offspring of malignity, and utterly unworthy of your consideration.”

Well, what will the gentlemen “outsiders” ask for? They have a sincere desire to do their duty, and to satisfy the policy holders that it has been done. Let us suppose the examination to have been made a few years ago, and that these gentlemen “outsiders” deemed it proper to make a critical examination of the expenses of the company. Running over the items, their eye rests upon this one:

“Office rent of agency, \$2,250.”

This is a very natural item of expense for an insurance company. But can any one suppose that the gentlemen “outsiders” would ever suspect that that item was in reality money used at Albany for purposes which required concealment, and which impelled Mr. Actuary Homans to refuse his certificate of audit even at the imperative command of President Winston: “Now I order you to audit that account; if you will not do it I will find some one else that will;” and which refusal to certify to a falsehood finally cost the actuary his position, the trustees electing between the imperious president and the upright actuary? Or do you believe that the gentlemen “outsiders” would have suspected that there were items in the account of “taxes” for 1868 and 1869, amounting to thousands of dollars, which were also spent at Albany or elsewhere in that questionable manner which required the Assembly committee of last year, when speaking of the acts of the Mutual Life and other implicated companies, to use the following language:

“The officers and managers of these companies seem, in the minds of your committee, to have willfully misconceived the purposes of insurance. * * * The prodigality of many of the companies in proffering large fees for examinations, in expending large sums for ‘counsel’ and upon outside parties in the performance of doubtful and unwarrantable services, and in contributing to large funds, as in the case of the ‘Miller Life Bill’—(the Mutual’s contribution to that being \$3,500 of your money) by which to secure unwise and injurious legislation and to corrupt legislators, should receive the most emphatic condemnation.”

Yet such is the fact.

And when these gentlemen "outsiders" turned to the account of salaries paid to the officers, would they have discovered that the sums charged therein were but a moiety of the sums actually paid? And would they have dreamed that in the account of "dividends paid to policy holders" would be found over \$189,000 paid to the officers and "buried up entirely," as sworn to by Mr. Trustee Brown? Yet such is the naked truth. Could such facts as these, and many of similar character, ever have been obtained by invited investigators or by any other than an adverse examination? And with such results from limited and embarrassed opportunities of examination, is it a violent presumption that, with full power, many more equally reprehensible can be discovered?

Do not the times and the circumstances demand that, if there is to be an investigation, it shall be such as will command respect and inspire confidence; that it be made by those who justly appreciate the rigid legal and ethical requirements which good law and good morals exact from the custodians of trust funds, and who will ascertain the truth, no matter at what cost of labor, and careless of whose feelings may be hurt by damaging disclosures? Must it not be made by the aid of experts, with proper guidance, with power to compel attendance and enforce answers from witnesses who will not or dare not volunteer information or speak the whole truth, excepting under compulsion?

Such an investigation, I grant you, will be an anomaly in our days, but such alone can effect a radical cure. And we need have no fears for the life of the patient. Its constitution is strong and its vitality is great, and we need not shrink from seeing the scalpel freely used by bold and steady hands for the eradication of that which mars its beauty and impairs its health.

An impression seems to have obtained with the officers and some of the trustees of the Mutual Life that they are the masters, and not the servants, of the policy holders; that theirs is the right to arraign any who dare question the propriety or integrity of their action. Realizing that private honor is the foundation of public trust, they threaten prosecution—at your expense—for libel upon their personal reputation, ignoring the fact that their fiduciary character is our property, and that ours is the right to criticise, approve or condemn their official conduct. There are, fortunately, now not a few, and will doubtless soon be many more, who dare challenge the infallibility and fearlessly condemn the shortcomings of these officers and trustees, and who will unite in requiring from them an account of their stewardship, and who do not believe that anything in the management of the company is too delicate to be divulged with safety to our interests.

Let us not await the fruitless instruction of calamity, but earnestly enter upon our work while we yet possess the power of avulsion.

JAMES W. McCULLOH,
60 Beaver street.

NEW YORK, *January 28th*, 1873.

WITNESS—These letters were called out by the controversy that arose in regard to the reduction of rates by the Mutual Life; it was a matter which aroused the policy holders, and caused a very large number of them to take exception to it.

Q. Have you seen a newspaper called the Baltimore Underwriter?

A. I have.

Q. I believe it was edited by a Dr. Bombaugh? A. Yes, sir.

Q. Will you look at the two exhibits now shown you, and see if they are extracts from the Baltimore Underwriter? A. I can only testify by the papers themselves.

Q. Where did you see the papers? A. Dr. Bombaugh sent them to me, originally, when he published these things; *this* one is a simple recapitulation of the facts in regard to the policies of Mr. Winston.

Mr. DARLINGTON:

It has something more, just below, in regard to a general allusion to other facts; if the committee will allow me, I would like to have these marked, with permission to supply others.

WITNESS—This publication is erroneous in its details.

Q. There is some little items of details? A. Yes, sir; for instance, he says that the restored policy was \$15,000; it was only \$12,000.

Q. Was not there a payment of some money besides? A. Yes; a small payment; there was an adjustment of the cash; at the time these policies were restored, there was an adjustment made by Mr. Actuary Homans, showing what the back premiums would have amounted to if they had been paid, as they should have been, to keep the policies alive; and then an *allowance* made.

Q. They were published about 1869, were they not; before the investigation? A. I don't remember the time of the publication.

Q. Will you be kind enough to produce them on the next meeting of the committee; I want to have them to fix the date; I see there is a reference here to the examination in supplementary proceedings of Mr. Winston; also in the suits of Dale and Wright? A. Yes, sir; that is an allusion to the pamphlet publications of Mr. Winston's examination.

Q. I will ask you to look at this little paper called Sartor Resartus; have you seen that before? A. I have seen that before; yes.

Q. It is signed with the initials, "J. H. B?" A. John H. Buel.

Q. He was a secretary or officer of some other company, was he not? A. He is the secretary of the Universal Life Insurance Company.

Q. What was this Universal Life Insurance Company—a child? A. No.

Q. Was it not originally started with the same directors? A. I believe some of the gentlemen connected with the *Mutual Life* are also connected with the *Universal*. You are thinking of the *Widows' and Orphans'*.

Q. The *Universal* is a stock company, is it not?

Mr. SEWELL.—Yes.

WITNESS—This Mr. Buel was formerly a book-keeper of the *Mutual Life*.

Q. Can you tell me about when that publication was made? A. It is dated March, 1870.

Q. Was that about the time of this investigation? A. My impression is that it came out just previous to the examination—speaking from memory; yes, sir; it came out just before the examination commenced; it makes a charge with regard to the falsification of the accounts of the company, for the purpose of affecting the ratio of expenses.

Mr. DARLINGTON:

I would like to have these three papers marked.

The papers referred to are marked respectively "Exhibits 4, 5 and 6, April 7th, 1873," and are as follows:

SARTOR RESARTUS.

In an advertisement of the Mutual Life Insurance Company of New York, F. S. Winston, president, recently published, and extensively distributed as a handbill, there appears a table pretending to exhibit the ratio of expenses to income of the various life companies on their total cash receipts and total cash expenses since their respective organization to the 31st of December, 1868.

The object of the table is, of course, to show the great superiority of the Mutual Life over all other companies on the point named; the ratio in its case being given as 12.21. That this exhibit should be untruthful will surprise no one who has any acquaintance with the documents of that company;

"Fear not to lie, 'twill seem a sharper bait,"

being, apparently, the controlling idea in their compilation—especially when contrasts are drawn with other companies on presumed points of excellence.

As the exhibit in question tends to the disparagement of other companies, it would seem proper to enlighten the public on one or two points which do not appear to have been taken into consideration by the compiler of the table alluded to, and which, if understood in their full significance, will greatly moderate the admiration of the public for the oft-claimed immaculate integrity of the management of this concern.

First.—It has been the practice of the officers of the Mutual Life, for several years, to add nearly the entire surplus of one year to the premium income of the succeeding year, on the plea that it is a single premium received for paid up insurance. Now, as this sum has been yearly from two to three millions of dollars and over, and has not cost the company one cent in the way of commissions or otherwise, its addition to the income of the company, of course, tends greatly to a reduction in the apparent ratio of expense. Indeed the question may very reasonably be asked whether this large sum can fairly be considered as income at all, since it is merely the retention of moneys which should have been paid out, and which had previously been credited as income on the books of the company.

It seems, too, a little strange that it is only within a very few years that the managers of this institution seem to have become aware that they possessed this important and convenient source of income, as their published statements, for twenty years or more, make no mention of it at all. Of course, having made the discovery that it was income, and having treated it as such on one side of the account, it became necessary to balance it by a corresponding outgo. Accordingly, we find the item, "Paid dividends in cash," so much; the fact, however, being that only an exceedingly small proportion of this large amount ever left the exchequer of the company. This is one illustration of the ingenious device noticed by Professor Wright, of "dividing and holding on at the same time." The object of this little trick in "double entry" book-keeping is to deceive the policy holders as to the cost of managing the business.

Secondly.—It has also been the practice of this company, for several years, to appropriate, annually, many tens of thousands of dollars of the surplus belonging to the policy holders as bonuses to the officers, in addition to their salaries; and as these large sums have never been charged to the expense account of the company, to which they honestly (or dishonestly) belong, but, in accordance with the unique system of book-keeping practiced in that office, have been charged to the account of dividends to policy holders, they thus, in a "duplicate ratio," assist in lowering the apparent expenses of the company. Of course the officers were duly authorized by the board to take the money; but the credit of so ingeniously abstracting the amount as to actually make it appear to the real owners of the funds that they not only had lost nothing at all, but positively gained by the transaction, is clearly due to the executive tact and financial ability of the managers.

Now, if in estimating the ratio of expense to income, as expressed in the table, proper allowance has not been made for the foregoing

little eccentricities in keeping the accounts of the company, their rectification must materially modify the flattering exhibit.

Will the compiler of the table enlighten the policy holders on this point, or must they wait until the truth is developed through the agency of the Hon. Dennis Burns and his committee-men now sitting in Albany?

When this point is cleared up, it is the intention of the undersigned to look into the item of "Commuted Commissions," which figures so conspicuously in the statement of the Mutual Life Insurance Company, that is, if the committee aforesaid do not forestall him in the task.

J. H. B.

NEW YORK, *March*, 1870.

EXHIBIT 5—*April 7*, 1873.

From the Baltimore Underwriter.

AN UNMITIGATED FALSEHOOD.

We are compelled once more to refer to the case of Mr. Winston, in connection with assurance on the life of his son. This is made necessary in consequence of an article in the Underwriter's Weekly Circular, of the 24th of July, in which the editor of that paper uses the following language in reference to our statement: "As stated in the Baltimore Underwriter, the charge, we are assured, is an unmitigated falsehood."

In prompting the editor of the Weekly Circular to charge us with "unmitigated falsehood," Mr. Winston has committed a very grave error. It was rather ungenerous, too, to make a cat's-paw of a credulous old gentleman anxious for his patronage. We say Mr. Winston has committed an error, because he affords us another and a very fair opportunity to refer to a subject, the agitation of which it is impossible can be agreeable to him. In all attacks on his character and actions, the awkward predicament of being obliged, in vulgar parlance, to "grin and bear it," has been his disagreeable necessity. Reply, he knows to a certainty, will provoke rejoinder, and this he dare not hazard, being painfully alive to the conviction that much of decent reputation in his case depends on the charity or indifference of those who are not his friends. His persistent silence hitherto to adverse criticism has been of vital service to him. A shield so effective he should not have discarded. In warfare a "masterly inactivity" has often effected more than a free and vigorous use of the musket or the bayonet; and likewise, as a defense against the "paper pellets of the brain," an invulnerable reticence in the party assailed has often more virtue in it than the most indignant rejoinder. Mr. Winston has abandoned the tactics which heretofore have served him so well, and he shall smart for his impudence, and for the insolent bravado with which it is accompanied. Our statement was as follows:

"Mr. F. M. Winston, son of F. S. Winston and 'cashier' of the

Mutual Life, took out policies as designated below, and surrendered or forfeited them on the dates given :

Number of policies.	Date.	Amount.	Remarks.
22,146....	July 1st, 1859..	\$2,500	Surrendered Oct. 2, 1862.
27,286....	Sept. 22d, 1862..	4,000	Surrendered Feb. 16, 1864.
30,964....	Feb. 16th, 1864..	5,000	Forfeited Novr. 28, 1864.

" Thus there was no insurance upon his life after November, 1864. In July, 1866, Mr. Winston died. Soon afterward the above policies were restored, and, with additions or 'installments,' amounting to \$15,000, made available for the benefit of his family."

This statement is substantially true. We again assert that there was no assurance by the Mutual Life in force on the life of F. M. Winston at the time of his death. We again assert that the policies enumerated above (two of which had become extinct by actual sale to the company) were restored after Mr. Winston's death, by the payment of the back premiums, which were duly entered on the company's cash book. We again assert that these policies were converted into one of the new fangled installment policies of the company, together with the dividends which would have accrued on them, had they been kept regularly in force. We again assert that the face of the installment policy was \$15,000; and further, that, according to the plan of such policies, the amount, together with the dividends annually accruing, is to be paid in installments for the benefit of the children of the deceased; so that, before the payments cease, the amount so disbursed will probably exceed the sum of \$20,000. We have heard that these installments are about \$1,200 a year, and that their payment will continue until the majority of the recipients. These are the material points in our statement, and its sum and substance, and we again assert that they are true. We also assert that Mr. Winston has admitted their truth, and offered, in order to appease the indignation of certain influential policy holders in New York at such a dishonest appropriation of other people's money, to return the installments already paid, and have the transaction canceled on the books of the company. We regret, however, that we are not also in a position to assert that this decent act of restitution has been accomplished. The books and employes of the company are the competent witnesses in this case, and to them we appeal for confirmation of our assertions in all important particulars; and we challenge and defy Mr. Winston, by their testimony, to establish his insolent charge of "unmitigated falsehood." His chosen champion and mouthpiece, the venerable editor of the Weekly Circular, says, with an astonishment and a *naivete* truly refreshing, that our "charge is one of fraud!" Be it so; we say that it is true, call it what we will. Mr. Winston's champion further says: "It were pleasant to hear of something new by way of charge against the

Mutual, meaning, we presume, against the fidelity of its management. This, under present circumstances, is really a little too defiant. Well, if the editor of the Weekly Circular will only have a little patience, his craving for "something new" in this line may possibly be gratified. If he be a policy holder in the Mutual, we cannot, in that case, however, promise that it shall be "pleasant." We make this remark in view of the statement which has reached us that a committee of policy holders—not one of these convenient whitewashing arrangements of Mr. Winston's own creation, with whose reports, eulogistic of his management, he periodically favors us—are about to exercise their right under the charter of the company, and inspect the books for their own satisfaction. In this, it is stated, they will be assisted by a gentleman thoroughly acquainted with the routine of the office. We understand that they desire particularly to look into the working of the official bonus system of the company, and the method in which the large sums paid on their account have been disposed of on the books of the company, as well as to examine into the purchases of future commissions, in which a thriving business seems to have been transacted for several years past. Possibly the amicable relations existing between the vice-president of the company and one of its counsel (not Mr. Betts, however) might engage the committee's attention, with a view to a saving of expense to that class of the company's patrons who seek loans on real estate. These and other matters, searchingly inquired into, may possibly develop "something new" to satisfy the craving of our excellent and quixotic contemporary. But we are content to leave these matters to the policy holders for the present.

We return to our own grievance. We are charged "by authority" in the columns of a contemporary, with "unmitigated falsehood." It is not our intention to sit down quietly under this accusation. Neither will it serve our purpose to go off into heroics and say that we fling back the audacious insult in the teeth of our accuser, and the like. This is not our view at present. We intend to treat the matter in a more practical fashion. We intend to examine into the character for veracity which the man who charges us with falsehood is entitled to bear. We mean to enlighten the public as to what reliance it is safe to place on the assertions—nay, the solemn oaths of our accuser. This we shall assuredly do if this insolent charge is not withdrawn. We have abundant material ready to our hand. Item—two pamphlets, entitled

SUPREME COURT.

EBENEZER DATE, etc., *against* FREDERICK S. WINSTON.

JOHN S. WRIGHT, etc., *against* THE SAME.

An examination of these precious documents, although a task repulsive to the candid mind, we will essay; and we venture to assert that in them will be found an amount of disreputable subterfuge, meanness and deliberate lying, on the part of this man—aided

and abetted in it all by many of his co-directors in the Mutual, and particularly by the vice-president of the company—that is positively amazing. Is Mr. Winston prepared to meet this ordeal? Is his conscience so seared, his reputation so spotted, his hide so tough, that he can calmly contemplate the moral vivisection with which we threaten him? The task to us, we assure him, is not contemplated with pleasure; but once commenced, the scalpel shall be used with a steady and unsparing hand, and the work thoroughly accomplished. Yet we are not so cruel as to deny him all chance of escape from the pain of our dissecting table. These, for the present, he may avoid by the withdrawal of his offensive accusation. Our terms are moderate and just; but our demand is peremptory, and in case of non-compliance therewith the penalty is as sure as fate.

EXHIBIT 6—*April 7, 1873.*

From the Baltimore Underwriter.

THE MUTUAL ON THE WITNESS STAND.

The "report of a special committee upon the assets, liabilities and management of the Mutual Life Insurance Company of New York" will be found in the present number. This document has called forth, as might be expected, eulogistic notices of the company and its management in all of the newspapers in whose advertising columns it appears. The unanimity with which the soothing influence of what our Chicago contemporary, the Spectator, calls a "sesquipedalian advertisement" is acknowledged, by the press, is remarkably illustrated in this case. The "editor and proprietor" yields to its gentle "pressure," while the "Commercial" becomes ecstatic at the bidding of his chief. We, too, are amongst the favored ones, and, of course, must have our "say" with the rest of them.

The occasion of a necessity for this "report" does not appear from the document itself. It contains no hint why, at this particular time, when the policy holders (supported by the public press) are so justly complaining of the inordinate expenses of the company, they should be subjected to the great additional outlay involved in the production of this report. This is a curious and remarkable omission on the part of the committee. Surely the policy holders are entitled to know the reason why their affairs need reporting on in this expensive fashion; why they should be called upon to pay for tons of pamphlets scattered broadcast over the country; why a necessity should exist—as nothing short of a necessity could justify it—for such a lavish expenditure of their money in advertising, to say nothing of the personal expenses and fees to the members of the committee; for it is ridiculous to suppose that these gentlemen would spend weeks of their valuable time during the heat of summer, in the service of a wealthy corporation, without receiving ample compensation. We say the committee should have informed the policy-holders on this point. What they have failed to do, however, we shall perform for them.

For a considerable time there has existed much discontent with the

management of the company; certain facts have leaked out, from time to time, giving the impression that the affairs of the company have not been fairly and honestly administered. It became known, for instance, that the president had made loans of the company's money to oblige his private friends, and without any security being given, so far as shown by the books of the company; that large sums of money had been donated to the officers, and paid from the surplus belonging to the policy holders; that provision for certain members of the president's family had been also made from the funds of the company, without a shadow of legal claim therefor; that since the appointment of Mr. McCurdy as vice-president, the expenses of the company have been materially increased by a lavish and ill-judged outlay to acquire new business; that competent and faithful agents, who had served the company with zeal, ability and astonishing success, had been compelled to discontinue their connection with the company through the influence and exactions of the vice-president, in order to advance the interests of his own relations. These and other circumstances of a kindred nature becoming matters of public scandal, and giving rise to the general impression that the funds of the company, chiefly through the influence of the vice-president were being constantly used for corrupt and selfish purposes, finally took the shape of active opposition to the management at the last election of trustees in June. The attempt to change the management was, of course, unsuccessful, as the president and his friends in the board hold sufficient proxies to render their tenure of office temporarily secure. The facts of opposition and contemplated inquiry, however, were alarming, and hence the present "report," as an attempt to soothe the troubled waters, and demonstrate the unreasonableness of the grumbling malcontents. Here we have the *animus* of the document under review.

On behalf of the policy holders we protest against the *personnel* of this committee no less than against the incompleteness—we should rather say the irrelevancy—of their report. If any inquiry into the assets and liabilities of the company was really necessary, it seems to us a very silly, not to say impudent, proceeding to refer that inquiry to the very persons to be compromised in case of serious deficit in or malappropriation of the funds—namely, the trustees. The committee was composed exclusively of trustees. They are the staunch personal friends of the president, and hold their offices as trustees in virtue of being so, and solely on that account. Suppose Mr. Jay Gould should take it into his head to appoint a committee of his friends in the Erie Railway board of directors to report on the "assets, liabilities and management" of that company, and should appoint Mr. James Fisk, Jr., as chairman of the committee, would it not be considered an excellent joke? And would not "the street laugh consumedly?" We are really at a loss to see any distinction between this and the little joke just perpetrated by Mr. Winston in his committee's report.

An examination into the condition of the company, we maintain, would much more properly have been intrusted to a committee of

policy holders, as the principals in the concern, and most properly of all to a committee composed of those who complain of the management. We know that amongst the malcontents are gentlemen eminently qualified for this task. A satisfactory report from a committee so composed would have effectually silenced all scandal and triumphantly vindicated the managers of the company. Did the officers of the company fear the scrutiny of a committee so composed? We must say that their action strongly favors such a supposition. Do they feel certain that the present report will forestall an examination by such a committee? If so, we think they will find themselves grievously mistaken.

The report itself is a perfect farce, so far as it is intended to allay the discontent amongst the policy holders, or satisfy them and the public on the points to which their complaints have reference. The real points at issue are not touched upon at all—namely, a denial or explanation of those charges against the board of trustees and the officers to which we have adverted; which have directed public attention in so unenviable a manner to their management of the company, and which reflect so severely upon their fidelity. No one has doubted the existence of the thirty-three million of dollars; although, possibly, some may have complained that there should not be even more. Still this fund is implicitly believed in. Its adequacy to meet the maturing liabilities of the company has never been doubted. The ability of Mr. Sheppard Homans to hold the actuarial scales in testing the sufficiency of this immense fund, and in distributing “in an equitable manner” the surplus amongst the policy holders is universally conceded. Yet these are the points—and the only points—which this “special committee” have vouchsafed to illumine with the light of their criticism. It certainly is “a lame and impotent conclusion” at which they have arrived. This is the satisfaction which the policy holders have received for the tens of thousands of dollars of their money squandered in pamphlets and advertising; in fees to West Point professors, and the members of the committee—yet let them be thankful. The thirty-three millions, which Mr. Winston says are there, are there, and Mr. Homan’s footings have all been found correct! And have they not in addition an elegant “report,” drawn up in the choicest language of eulogy and congratulation?

Looked at in its true light, this report is an outrage on the policy holders and an insult to their common-sense. The officers of this company are personally charged with what, for politeness’ sake, we shall call mismanagement and selfishness. They endeavor adroitly to mould the complainings of policy holders against their individual malpractices into the form of an attack on the solvency of the company and a slur upon the correctness of the mathematical basis of its operations. The impudence of this “dodge”—for it is not worthy of a more dignified name—is amazing; but, nevertheless, eminently characteristic. Anything said against Mr. Winston has always been cunningly accepted by him as an attack upon the Mutual Life. Under the guise of demonstrating to the policy holders the entire

soundness of the institution—a labor entirely supererogatory, for it is annually substantiated by the independent examination of the insurance commissioners of Massachusetts—but in reality for the purpose of diverting attention from the charges against themselves, the officers of the company thus squander the money of the policy holders. The labors of this committee, we assert, give the policy holders no better guarantee of their security than is annually afforded by the Massachusetts commissioners. Nay, not a tithe as good, for the latter gentlemen are entirely free from official influence, and are thoroughly practiced and grounded in the peculiar knowledge required for such a task.

We assert that this labored eulogy of Messrs. Winston and McCurdy—misnamed a report on management of the company over which they preside—is not made in the interest of the policy holders, and cannot by any possibility result in any satisfaction or advantage to them. It is got up for purely selfish purposes. The wholesale subsidization of the public press, through profuse and costly advertising and paid editorial notices, is an attempt to manufacture public opinion in favor of the managers, and stifle the just complaints of policy holders. How is this enormous expenditure to benefit the company? Why should the policy holders' money be thus lavishly and brazenly squandered for purely personal and selfish motives? It is well that Mr. Winston should know that this eternal business of periodically whitewashing him by committees of his personal friends has spent its force, and has become not only a farce, but a nuisance. In this instance his tactics are thoroughly understood by those who will not fail to expose their drift and their hypocrisy. Already comment is general and complaint indignant at the unscrupulous and disgraceful expenditures in which he is indulging at the expense of the policy holders, to divert public attention from his previous malfasance. His present tactics will not, however, effect his purpose. We do not believe that the trustees of the company will much longer submit to be considered his dupes or his tools, or that he himself will be permitted by public opinion to retain a position of trust for which he has proved himself utterly unworthy.

In our next number we shall make a further examination of this report.

Mr. DARLINGTON :

I read from the complaint in the suit in the Supreme Court. The first article is from the June number of the Insurance Times. That is the first publication complained of by him. It is in reference to a petition to the Governor or a letter to the Governor. It is headed in the article of the June number of the Insurance Times, on page 359,—“The Superintendency; the right man for the place. To his Excellency John T. Hoffman”—and it takes about one column of that page. The part complained of is this.

“I am induced to urge these points, because it is reported that the

officers of the Mutual Life of this city" (meaning Richard A. McCurdy, the vice-president of said company, and the plaintiff herein, the president of said company) "are making strenuous efforts to procure the appointment of a person who would shield them from the consequences of their malappropriation of the company's funds as effectively as did the recent superintendent."

Then it skips a part of it, and goes on with a further quotation from the same article.

"Of course they are anxious to keep their places. They have been squandering the company's money most extravagantly, and as a legislative investigation of their management will take place next session they are eager to foist some friend of theirs upon the department as superintendent."

The question is, whether or not, prior to the publication of that, which was in the latter part of June, 1872, these charges had been publicly and openly and currently spoken of throughout the city of New York.

MR. SEWELL:

I desire to address the committee on that question, very respectfully, for a few minutes. I am sure that the committee—the chairman and gentlemen who are here engaged in this investigation—will bear witness that I have not objected, except once, when I thought the course of questioning Mr. McCulloh would lead us perhaps into the repetition of stories from mouth to mouth, and get in here a little hearsay evidence and matter that could not be relied upon as evidence; I then brought the attention of the committee to the fact. With that exception, I have allowed this examination to go on just as the counsel for Mr. English wished it. I now ask the committee to bear with me for about five minutes while I call their attention to this case and its present aspect.

There is a case pending in the Supreme Court of the State of New York. Our Constitution divides the governmental capacities of this State into three distinct and independent bodies. There is the executive, the legislative—of which you are honored members, and you are here discharging the functions attaching to your positions as legislators—and there is the judiciary; each in its place independent, and each in its place allotted certain specific duties.

Now, the Supreme Court, which is the highest court of common law and equity jurisdiction of this State, the great *ultra legis* to

which we all look for the preservation of our lives and our property and our honor, has jurisdiction in this case; has cognizance of this case. There has just been read to you a portion of the complaint of the plaintiff in the case. Mr. Winston has gone to the Supreme Court and he has complained of the defendant that he has said these very words which Mr. Darling has just read to you; and the defendant has put in his answer to the Supreme Court and has said, as one of his defenses to that charge made by the plaintiff, that this matter had been often publicly spoken of before.

Now, that raises an issue of fact and of law for the Supreme Court to judge upon. In the first place it raises an issue of fact: "Were these things ever before publicly spoken of?" "Was it before ever publicly said that Frederick S. Winston was using improper means to have a Superintendent of Insurance appointed who would conceal his malappropriation of the moneys of his company?" And if he did, is that any defense in a libel suit? That is the question of law. Because three or four men may have said that I am a thief, am I not to have my action of damages against Mr. McCulloh for saying that I am a thief? and is it any excuse, when I bring him before the court and charge him with doing so, that somebody else has said it, and he has only repeated slander? Why, the maxim of the law is that the man who repeats the slander is just as guilty as the man who gives it birth, and particularly the man who multiplies it by millions through the aid of the steam-press, and scatters it broadcast over the whole country. There is an attempt now made to make this committee try an issue which is pending before the Supreme Court of this State, to try an issue of fact and to try an issue of law; to say whether or not these things were said before, and to say, if said before, whether or not they are an excuse for Mr. English. I have great respect for this committee and great respect for the members of it personally, but I know too much about the laws of this State to be led for a moment to suppose that this tribunal can give Frederick S. Winston what he asks for in this suit; and are you going to try a cause where you cannot do exact justice to both parties? Are you going to be led into the trial of an issue where, if we prove the facts to your satisfaction, that we are right, you cannot give us the justice that we demand? We are in the Supreme Court, asking for the protection of a simple right. We say we have been damnified, and can claim damages in money. Can you give us the damages if we prove it before you to-day? That question shows this whole difficulty, and shows the impro-

priety of the question that has just been put, and shows the impropriety of any such evidence. You are infringing upon the jurisdiction of a co-ordinate tribunal. You are taking out of the Supreme Court that which the Constitution says shall be tried there, and not by the Legislature. I say this with the utmost respect. I say it, not as opposing your jurisdiction, if you see fit to go into this examination, but in order that it shall not be said that I, as a counsel of the Supreme court, supposed to be, if I am not, versed in the laws of this State, sat silently by when issues in that tribunal were dragged out of it to be tried before a committee of one house of the Legislature.

MR. DARLINGTON.—The gentleman has well spoken of the division of authority in this State; and it is in reference to that that we come before the Legislature. The Supreme Court acts under the authority of laws framed by the Legislature. This investigation is to ascertain whether there have been any abuses of the laws which you have enacted, and whether those laws are wrong, and whether they ought to be corrected. I take up, as I understand it, substantially the order of business adopted by the committee. The committee is to inquire whether there is anything radically wrong or unjust in the law or laws under which Mr. English is arrested and imprisoned. If this publication has been made openly, publicly, over the names of responsible citizens, in a paper of much larger circulation than the Insurance Times—the New York Herald—if they have been published by Mr. Winston or by the Mutual Life itself, shall a citizen who subsequently takes these facts and publishes them be arrested and held to bail in this enormous sum—a sum which Mr. McCulloh and many others could procure, without difficulty, but which he cannot—or shall the law be corrected? In other words, is the law wrong or have the judges misinterpreted their duties and committed an injustice? We desire to bring out the fact that Mr. English—taking facts known, publicly commented upon and admitted to be true—published them with nothing but ordinary, reasonable and fair criticism; that he has been selected out to be crushed—for, as I said, he cannot give bail in such a sum as Mr. McCulloh could—and Mr. McCulloh and others are allowed to go scot free. They have not sued the Herald or Mr. McCulloh. What we want to show is, that before this publication by us, this whole matter was known. We want to ascertain whether the law permits a citizen to be thus arrested before trial, put in prison and punished, and rendered help-

less to aid himself. If there is such a law, ought it not to be taken from the statute book?

The CHAIRMAN—I suppose we were sent here merely to get out the facts in the case. We do not decide any of these points. We are merely sent here to get the facts and report to the House.

Mr. BLESSING—So long as this has been published in other papers, previous to its being published by Mr. English, I think the evidence is very fair and we ought to go on and admit it. They had the same right to sue the Herald as they had to sue Mr. English.

The CHAIRMAN—I decide that is a proper question.

Mr. ATWOOD—I suppose Mr. Sewell will agree that whatever this committee may do, it will have no effect upon the final action of the Supreme Court; so that it is immaterial what the committee do; I don't suppose you care much about it.

Mr. SEWELL—Except I have stated just what I did it for. Of course I am perfectly satisfied with the decision of the committee.

Mr. BLESSING—All we desire to know are the facts and report them to the House.

Mr. ABBOTT—If it is a fact that these publications were made before, I think it is proper that this committee should know it, and report it.

Mr. SEWELL—Of course, in what I have said, I refer to the charges just spoken of, in the first count of this indictment.

Mr. DARLINGTON—I mean to refer to all the charges. I read that because it was the first in order.

Mr. SEWELL—Has Mr. McColloh read all of the complaint? He cannot answer unless he has.

Mr. DARLINGTON—I think he has read the complaint.

WITNESS—No, sir, I have not.

Mr. DARLINGTON—There has been an abstract of it published in the Herald alongside of one of your arguments.

WITNESS—I read that publication in the Herald, dividing it up into heads, but I cannot remember it.

By Mr. DARLINGTON:

Q. You can give your own answer as to what has been publicly spoken of? A. Suppose you run them right down and ask me.

Q. I will read the first: "I am induced to urge these points, because it is reported that the officers of the Mutual Life of this city are making strenuous efforts to procure the appointment of a person

who would shield them from the consequences of their malappropriation of the company's funds as effectively as did the recent superintendent. Of course they are anxious to keep their places. They have been squandering the company's money most extravagantly, and as a legislative investigation of their management will take place next session, they are eager to foist some friend of theirs upon the department as superintendent." They have used the term "embezzlement" here. Those are the facts? A. I don't know that the exact terms were used of malappropriation and squandering; but the fact that they had been extravagant in the bestowal of the money of the policy holders, and that their expenses were heavy and falsified by the statements of the company, had all been spoken of.

Q. How long before June, 1872? A. 1869, 1870.

By Mr. ABBOTT:

Q. Had these statements been published in any leading papers?

A. The matters about which I have testified to-day were all in publications, publicly spoken of in newspapers of Boston, Philadelphia and New York.

By Mr. DARLINGTON:

Q. I will read the next: "These servants" (meaning the plaintiff herein and others) "have aspired to the entire mastery and control of the company" (meaning the Mutual Life Insurance Company aforesaid), "and, ignoring the rights of their actual employes, have handled the funds as if they were their own property" (meaning thereby, that the plaintiff herein had made use of the moneys of the Mutual Life Insurance Company, and trusted to his care, for his own personal advantage, and had converted the said funds to his own use); "the intimations we have dropped of their mismanagement and malappropriation was only the commencement of a series of revelations that will astonish the life insurance world?" A. Give me one at a time.

Q. "These servants have aspired to the entire mastery and control of the company, and, ignoring the rights of their own employes, have handled the funds as if they were their own property." Have you heard anything about that? A. I understand that to refer to the proxies; the matter of the company having accumulated a large amount of proxies was spoken of constantly, and the facts with regard to it published in 1869, and an opposition made to the officers of the company in consequence of it.

Q. Open and public? A. Open and above board; and that opposition disclosed the fact that they had possession of proxies, and that they meant to use them to put whoever they pleased in office.

Q. Then, the next is: "The intimations we have dropped of their mismanagement and malappropriation was only the commencement of a series of revelations that will astonish the life insurance world?"

A. I considered, and it was publicly spoken of—of course in a contest of this kind there has been a very wide difference of opinion between the friends of the company and those considered as its opposers; but a very large body of them considered that there was gross mismanagement on the part of the trustees to permit such large amounts of money to be taken and expended in ways that they deemed to be questionable.

Q. The third article is this: "Thus does Mr. Winston ride the company and subject it wholly to the tyranny of his will. He uses its funds as if they were his personal property. He turns the company into a bank, and cashes drafts for his friends, and allows them to remain for a year or more in the drawers, till they accumulate to heavy totals, reckoning them as cash on hand, and keeping no record whatever of the transaction; and thus uses and misuses the funds of the company without the sanction of the trustees, and contrary to the provisions of the company's charter." A. That has reference to the Seymour and North drafts.

Q. They had been openly spoken of and commented on? A. Yes; and defended on the ground of its patriotism.

Q. The next article is this: "Who would not be president of a purely mutual life insurance company? Consider and admire the happy life led by the president of our colossus. Think of \$30,000 a year for a bankrupt and incompetent merchant, with pickings and gleanings, in the shape of commissions, etc., probably more than triple his salary. * * * During his sojourn by the Euphrates he discovered not only the mysterious writing on the wall that once startled Nabuchadnezzar, but also the still more important fact that the mystery of his own abuse of trust, and mismanagement of the funds of the widow and orphan, was coming to light." I will leave out that about Nabuchadnezzar, because I don't suppose that has been spoken of. "Like the recreant king of Babylon, his mind was filled with dismay at the contemplation, and he hied over land and sea until he reached the tower of Babel, on the corner of Broadway and Liberty street." What do you know about that?

Mr. SEWELL:

We don't want any of that left out; we would like to hear whether that has been spoken of before.

Q. The words "abuse of trust," and "mismangement of the funds of the widow and orphan;" had they been spoken of before? A. Yes, sir.

Q. "Here he was met by his brother in spirit, and fellow-officer and sinner, Richard A. McCurdy, who recounted all that had been said and written by that man of strife, Stephen English, touching the worship of mammon, which was, like a Moloch, swallowing up the widows and orphans of the land. 'Why did you not threaten to take our advertising from him?' said Winston. 'I did threaten him in that, sir; but he told me to take my advertising to the d—l,' replied McCurdy. Winston—'The man must be mad; any man that would sacrifice a \$300 a year advertisement for principle must be mad?' McCurdy—'So say I!' Winston—(meaning the plaintiff) 'We will give it out that he is really mad, for, to tell the truth, it is the only way in which we can meet his charges. I therefore vote that he is mad?' McCurdy—'I second the motion.' Carried unanimously."

I don't know that that is libelous on Mr. Winston. Had you heard any publications to that effect?

Mr. SEWELL:

That is not fair. Had you heard any publications, saying that Mr. Winston said he was mad? A. I know nothing about it.

Q. Did you know anything about the publication in the Newark Review? A. No, sir.

Q. This is the fifth one: "But Mr. Homans, who was a man of science and a gentleman of honor, was not a fit associate for Messrs. Winston and McCurdy; they are mere schemers; they do not care a fig for life insurance beyond the facility it affords them to make money faster than they could gain it in merchandise or law." Will you be kind enough to tell us if you ever heard anything of that kind spoken of? A. The contest between Winston and Homans?

Q. Yes? A. That was publicly talked of.

Mr. SEWELL:

That is not the clause there. Did you ever hear it said before, publicly, that they did not "care a fig for life insurance beyond the

facility it affords them to make money faster than they could gain it in merchandise or law?"

Mr. DARLINGTON :

Or anything to that effect? A. No publications of that kind.

Q. Has it been a matter of remark? A. Of course men would talk about such things.

Q. You had heard it remarked? A. I had.

Q. About how long before; during all this period? A. This contest has been going on, more or less, for four or five years, and, of course, you hear constantly remarks made; but they are not matters of evidence.

Q. "Mr. Homans, however, cherished a love for its principles and beneficence, and found it impossible, after years of forbearance and ineffectual protest, to remain in an organization of which the greatness was only a convenient shield to hide venal corruption and personal aggrandizement." What do you know about that? A. I can only say with regard to that, as a matter of my own knowledge, that Mr. Homans and Mr. Winston—and Mr. McCurdy sided with Mr. Winston—were opposed to each other, and that it ended in Mr. Homans being required to leave the company.

Q. Do you know anything about Mr. Homans being ordered to audit an account and refusing to do so? A. Yes, sir.

Q. Ordered by Mr. Winston? A. Yes, sir.

Q. And he refused to audit it on what ground? A. Because it contained statements that he considered to be incorrect, and he refused on that ground.

Q. After giving Mr. Winston his reasons, was reordered to audit it? A. He was.

Q. It goes on further: "It is a rich mine, but not inexhaustible. Mr. Winston and company have worked it diligently to their own advantage, with little regard to the rights of the policy holders, and although the ravages that they have made do not, by reason of its greatness, conspicuously appear, they are gradually sapping its wholesome vitality and undermining its substantial greatness." I do not ask you if you have heard those precise words, but in reference to the use of the company by Mr. Winston & Co., and so on, or to that effect, have you heard anything? A. I have heard remarks made publicly, and I made them myself publicly.

Q. Have you seen such statements published? A. They were

published in the papers, in repeating what was said in speeches, charging that the officers were recreant to their duties as trustees, and paying more regard to their own personal interests than the interest of the policy holders, in matters which I have related here.

Q. We will skip to the seventh: "The Mutual Life Insurance Company of New York—Mr. Winston is not only surrounded by an insatiate family, but has also a snug little ring about him, who help to cover up and authorize his irregularities, and, of course, share in the gain." Have you heard anything about there being a ring in the board? A. I have heard it very frequently.

Q. And that they had received personal benefit from it? A. Yes, sir; you will find such a statement as that *here*; when I say you will find such a statement, not to the extent that that goes; there is a statement made *here*, that parties who were receiving benefits from the company were those who enabled this bonus business to be carried through and paid; the gentleman who made that statement, I understand, has since attempted to withdraw it.

By Mr. SEWELL:

Q. Who is the gentleman? A. Mr. William Smith Brown; the trustees of the company themselves have made statements in my presence, to the effect that the company was managed by a few who were deriving benefits from it; others than Mr. Brown.

By Mr. DARLINGTON:

Q. Then it reads: "The proxy system enabled him to constitute the clique of his old cronies, and most subservient creatures. The business of investing the company's funds yields a vast source of profit, whose cohesive power keeps this conclave in harmonious unity. When the financial market is stringent and money is required on mortgages at any rate demanded, this ring reaps its golden harvest?" A. Mr. Winston made the declaration to me himself, that he did not allow any changes to be made in that board that were unfriendly to him; I knew what he meant; he meant he should use the proxies to defeat any attempt to put men there that he didn't know were friendly.

Q. Was that publicly spoken of, which speaks of the business of investing the company's funds and its keeping this conclave in harmonious unity? A. I have seen such publications in the newspapers, and amongst them the New York Times, several years ago, commenting on

the benefits derived from persons concerned with the companies, and speaking of some as the dummy trustees, and others as the workers and reapers of the harvest, and such things as that; you will find the New York Times making such statements for the last two or three years.

Q. It says further: "At this point legislative investigations must be minute and exhaustive, as the mine for development here is rich in the most extensive and festering forms of corruption. The control of the investment of \$15,000,000 a year is a dangerous power to intrust to unprincipled men, and our readers will infer, from what we have shown of Mr. Winston, that it has been shamefully abused." A. The committee will understand, I have no doubt, that these matters of insurance have been matters of public discussion, and charges have been made from time to time, and denials, constantly in the papers, of such things as those; and the matter is of common discussion.

Q. Haven't you heard them discussed over dinner-tables at Delmonico's and other places? A. Yes, sir.

Q. Did you hear them called at dinner-tables "extensive and festering forms of corruption?" A. Yes, sir; I have heard words used at dinner-tables—not exactly those words—probably those are not the proper words to use at dinner-tables.

Q. The last article in that complaint is: "Mr. F. S. Winston, the president of this company, is resorting to various devices to neutralize the effect of our exposure of his mismanagement; in the first place he thought it most prudent to ignore the writer in his charges; finding that our revelations of his misconduct were producing the effect inseparable from just and truthful statements, he concocted the ridiculous report that the writer was insane, and induced a drunken editor in Newark to publish it." Did you hear that? A. No.

Q. It goes on as follows: "The editor must have been well paid for the insertion of this calumny, for he has not since been sufficiently sober to get out another number of his paper. That article may prove fatal to Mills, as well as to the Newark Review. Winston's next dodge was to solicit insurance officers, with tears in his eyes, to help him kill the Insurance Times, by stopping their advertisements. But they did not see it." Did you hear anything about that? A. No, sir.

Q. "It is Winston, and not the Mutual Life, we assail; but one of the charges which we shall prefer against him, when his trial comes on, is the expenditure of vast sums of money, under the pretense

that they were needed for the defense of the company, which had not been attacked by anybody. He thus, and then, diverted the attention from himself and Mr. McCurdy, the only parties complained of by the policy holders, and made a shield of the company to shield himself from their righteous indignation." In other words, that Mr. Winston has diverted attacks from himself by making it a defense of the company, and not of himself? A. It has been a matter of common comment in the town, that the company was always thrust as a bulwark between Mr. Winston and any attacks made upon him; he has always thrust the company forward to defend himself; it has been a universal mode of defense.

"Q. In this manner he protected himself, at an enormous cost to the company, and he is now pursuing the same policy at a prodigious outlay. It is evident the trustees have no control over this bad man, and the company's expenditure. * * * Winston is again squandering the policy holders' funds to purchase friends, but, 'Mene, mene, tekel, upharsin.' Cannot the trustees be aroused to a sense of their duty, and their obligations to protect the company's funds from this unwarrantable and wasteful extravagance?" In regard to that, by the way, I will ask you if you can give me, from the record there, what amount was spent for advertising this company? A. There was a report made in July, 1869.

Q. Can you tell me what difference there was in the third quarter of that year and the third quarter of the preceding year? A. That report was made by a committee of trustees appointed to examine into the affairs of the company.

Q. That last report in June—were not the expenses for that third quarter about \$17,893.52? A. I have a memorandum of the statement; there was a bill of \$4,377.48 paid for printing that special report; the advertising for the third quarter for which that report was published, was \$17,893.52; the quarter previous, \$5,800.

Q. Give us the third quarter of the preceding year? A. The third quarter of 1868, was \$5,369; we will leave the cents out; on the fourth quarter it was \$4,821; the first quarter of 1869, was \$7,625; that would increase naturally, by reason of the regular annual statement; the second quarter \$5,853; the third quarter in which this report came, was \$17,893; and for the next quarter after that, \$2,602; the memorandum that I hold here is for 101,990 copies of the special report, printed at a cost of \$4,377.48; the reports were very widely circulated and published through the country; I should say that

amongst the policy holders these matters of expenditures have been a matter of common comment and condemnation, amongst a large class of policy holders who knew the facts; the majority of the policy holders are totally ignorant of anything connected with the company; life insurance is a mystery to most of them.

Q. This Mr. Brown of whom you spoke, was he formerly a member of the auditing committee, or what committee? A. He was a member of a committee appointed in 1864 to investigate the charge made by Isaac Green Pierson against Mr. Winston.

Q. After that, didn't they propose to put him on one of the committees? A. Yes, sir; there was a nominating committee that suggested Mr. Brown as one of the auditing committee.

Q. Was he put on? A. No, sir; he was not.

Q. Do you know why he was not put on? A. Yes, sir; I gathered it from the trustees of the nominating committee.

Q. What statement did the trustees make? A. It was in consequence of the objection of Mr. Winston to having him there.

Q. He had made a dissenting report? A. And was considered, as in a measure antagonistic to Mr. Winston.

By Mr. Atwood:

Q. Do you think of any further irregularities on the part of the officers of this company, at the present time? A. There were sundry acts disclosed in that examination, where they had disregarded the regulations of the company and the by-laws; irregularities committed; also a failure to secure the assent of the Superintendent of Insurance, as required by law, to allow a premium or dividend to be used in diminution of premiums, all matters showing a lax system of management.

By Mr. Abbott:

Q. You spoke once about some portion of this investigation being suppressed or kept out of this report? A. Yes, sir.

Q. Do you know what it was? A. There are none of these statements of the bonuses; there are none of these statements here with regard to the reports of the committees; they are not in them.

Q. Those were all brought out on the investigation? A. Yes, sir; and made a part of the reports, you will find.

Q. But they are not in the published reports? A. No, sir.

By Mr. BLESSING :

Q. At the time the resolution was passed by the trustees of that company, to raise the salary of Winston to \$20,000, do you know whether at any time a bonus was awarded to the officers of the company, amounting in three years to \$189,000? A. That was the sum total paid to the officers as bonuses; the bonus was stopped in 1869; after the payment in 1869 that was stopped; you will find in this a full account of the repeal of that bonus business; there is no statement here with regard to the amount.

By Mr. DARLINGTON :

Q. Is that amount, \$189,000, correct, is what Mr. Blessing means; wasn't that in direct violation of the by-laws? A. The question was in regard to the compensation of their officers; I presume no man can have any doubt of the right of the trustees to fix that compensation; they may fix it at an inordinate sum if they see fit, but at the same time we could not question the propriety of it; this bonus was made in the shape of a commission upon this dividend made by the company; they gave him \$20,000 a year; they had given other officers sums that had been fixed; and the bonus or dividend—or commission rather, upon the dividends of the company, over and above their salaries; their salaries were ample, and I have no doubt in my mind that, as trustees handling trust funds, they were bound to make a specific rate of salary for those officers; I have no doubt in my mind that this bonus business was nothing more or less than a device that was intended ultimately to supply Mr. Winston with the means to settle with his creditors.

Q. Under their charter rights, ought not this surplus to go to the benefit of the policy holders? A. It belongs to the policy holders, and they have no right to take a dollar of it; the dividend is nothing more or less than a refunding to the policy holders of the excessive charge of the year previous; for the company finds out the net amount that is necessary to insure the risk of life, and they then load the charge with what will cover the contingent expenses, expenses of the company, unforeseen expenses and unexpected deaths, or other contingencies; when the business of the year is finished, the differences between that loading and the actual expense and outlay is determined, and an equitable share of it is returned to the policy holder in the shape of their dividend; it was out of that fund that these moneys were paid to the officers.

Q. Will you be kind enough to tell us about that act of 1872, requiring the consent of the Insurance Department; that had escaped me altogether; there was an act, was there not? A. Yes, sir; there was an act; there is a law of the second of April, 1862, which provides that the corporation may appropriate its dividends either to the purchase (that is, the members) of additional insurance, payable with the policy; or, at the option of the insured, in reduction of or toward the annual payment of premiums on policies; and that such dividends may be declared every five years, or oftener, at the option of said company, provided said company shall not make such appropriation in reduction of any annual premium without the consent first had and obtained of the Superintendent of the Insurance Department.

Q. How had this company done from 1862 down to 1869? A. I don't know; the dividends were charged; but for dividends previous to 1869, they had not obtained that consent; it was obtained after the charge was made.

Q. Then they went and got the consent dated back? A. I never saw the consent; I know they got the consent after it was charged by me that they had violated the law; I would state, in regard to that matter of the diminution of premiums, it is an account which the policy holders have paid a good deal of attention to lately, as it is used in the last report of the company to effect a ratio of the expenses of the company.

Q. I will produce the last report; I want to ask you if that is correct? A. As a matter of fact, it is not correct.

Q. Why is it not; will you tell the committee?

Mr. SEWELL:

I don't know what this has got to do with the case. That has occurred long since all these charges.

A. That was a charge at the time that it was used in the same way, and it was all discussed here.

By Mr. SEWELL:

Q. The report of 1873 was not discussed in 1870? A. No; I say this matter of accounting that is used in the present report of this year was discussed at the time of that examination; I think it brings it down to a point to state shortly that the ratio of expense as stated this year is not correct; I state that as an expert, or as an accountant.

Q. What ratio is stated? A. Six and ninety-eight one hundredths; that is not true; six and ninety-eight one hundredths of one per cent, the proportion of the expenses to income; the income is overstated several millions of dollars.

By Mr. ABBOTT:

Q. In the last report? A. Yes, sir; the actual cash income is overstated over \$2,000,000.

By Mr. SEWELL:

Q. Explain to the committee how it is so? A. The law that I have just read to the committee, as you see, authorizes the company, after having obtained the consent of the superintendent, to permit the policy holders to use these dividends in diminution of the premiums of the next year; if I have earned a dividend of \$100, and I have got \$150 to pay at the anniversary of my policy, I can surrender that dividend and get its surrender value credited in part payment of my premiums, I paying the additional amount.

Q. Fifty dollars? A. Yes, sir; now, these portions which have been surrendered in the statements of the company are charged up as disbursements actually made, and credited as actual cash premiums, and included in the income, the effect of that being to show the income as large as possible, and reduce the ratio of expenses to income; the company claimed in 1870 that it was done by consent of Mr. Barnes, but it was admitted by Mr. Homans that it was done for the purpose of making as good a show as could be by the company; it is a fiction of book-keeping, and it is not a fact, and in a strict accounting among policy holders, in the opinion of a very large number of merchants and gentlemen, it is wrong; it is a misstatement of the income.

By Mr. ABBOTT:

Q. Does the Insurance Department admit this; do they allow it? A. They approved it, according to the statement of 1870; what they have done since I do not know, but they must have approved it, or it would not have been continued here.

Q. They must have approved it on this last statement? A. I suppose they did; I don't know anything about it, though; we claim, as policy holders, that the Mutual Life—that its solvency is so undoubted, and that its prominence is of such a character, that it ought not to falsify anything; it needs no resort to any fiction of

book-keeping, or any shifts, to make its position appear any different than what it actually is.

By Mr. SEWELL:

Q. You were stating that it was claimed by others that this ground is not tenable? A. The company and their advocates very naturally claim that they have a right to make such disbursements and such expenditures, while it is admitted by every one actually, that it did affect the ratio of expenses, and it was made for that purpose; in other words, it was made to deceive the policy holders as to what was the actual ratio of expenses that the company was under; that was undoubtedly the object—to place it in as good a position as possible; Mr. Homans' testimony in regard to that is full in this book.

By Mr. ARWOOD:

Q. That statement affecting the ratio would affect the company in its business, wouldn't it? A. If the company can induce the public and policy holders to believe that its expenditures are only six and ninety-eight one hundredths of its receipts, as a matter of course it would put it in a very favorable light.

Q. The average expense of life insurance companies is beyond that, is it not? A. Yes, sir; I don't believe there is an insurance company in New York that tells the truth about these matters, and I *know* the Mutual don't.

Q. How many trustees does this company have by its by-laws? A. they have got thirty-six.

Q. Are those trustees scattered around the United States among the policy holders? A. Outside the city of New York, there are only a few; I believe there are two in Boston; Mr. Rice and Mr. Richardson; Mr. Starr of Philadelphia, and Mr. Babcock of San Francisco.

Q. The majority of them are in New York? A. Yes, sir; the majority of them are in the city of New York; I think they ought all to be here; it is represented that the company, having strong friends amongst policy holders, with trustees at points like Boston and San Francisco, would be for the benefit of the company; if we only carried that out to its rational result, we would put a trustee in every important place and we would have nobody here to watch the officers.

Cross-examination by Mr. SEWELL:

Q. You went on to Boston, you say, at the request of the policy holders of Boston? A. Yes, sir.

Q. Didn't you ask the policy holders of Boston to request you to come? A. I did not.

Q. How was it brought about that you went there; did you write to somebody there to tell them it would be a good thing? A. There is a Mr. Geo. B. Baldwin, a prominent merchant of Boston, who has a policy in the Mutual Life, and Mr. Barton, his partner, and several other gentlemen that I was acquainted with in business there; they became interested in the fact that such an investigation was going on, and they asked me if I would come there after I had finished the examination, and attend a meeting of the policy holders; and I told them I would; I gave them some information in regard to the facts which had been developed during that examination; I should say Mr. Baldwin was a customer of mine, and had been for a number of years; and from time to time, while the examination was going on amongst the policy holders, I was asked questions, and would very frequently show what had been ascertained; and I was requested by him—asked whether I would come, and I said I would at any moment that they were ready; and he requested me to name what time would be most satisfactory to me, and when I could come, and he would arrange a meeting for me; I did that, and they sent me the request.

Q. That meeting heard your statements of facts? A. They did.

Q. And appointed a committee to examine into the matter? A. Yes, sir.

Q. And that committee came to New York, and made an examination, did they not? A. I don't know what they did.

Q. Did you never hear? A. I did, from a report that they made afterward.

Q. You saw then a published report of the committee which was appointed by the meeting in Boston, which asked you to address them? A. Yes, sir; I have got a copy of them.

Q. What was the name of the chairman of that committee? A. Mr. Baldwin was one member of that committee; but having been called away to San Francisco, he was obliged to leave.

Q. That committee was composed of B. T. Nourse, William Hilton and Alexander Rice, was it not? A. No, sir; it was composed of Nourse, Hilton and George Richardson.

Q. Mr. Richardson did not attend in New York, in consequence

of his absence in California? A. No, sir; Mr. Baldwin was absent, and Mr. Richardson came here and voted himself into office.

Q. There were intrusted to that committee, by the policy holders of Boston, a lot of proxies of the Boston policy holders? A. Yes, sir; I don't know where they got them; I think they were sent to them after they got here.

Q. Did that committee not publish this report which I hold in my hand? A. I believe the Mutual Life published this.

Q. Did the committee furnish it to the Mutual Life to publish? A. That I don't know.

Q. You have seen it published? A. Yes, sir; I got it from an officer of the Mutual Life.

Q. You never heard that the committee of gentlemen whose names were signed to it repudiated it? A. No, sir.

Q. You have no doubt in your mind but they made that report? A. None in the world; I have no doubt, either, of its inaccuracy; I can show these gentlemen falsehoods enough.

Mr. SEWELL.—I will furnish the committee a copy of the report.

Q. Did not Mr. Miller make a report on the subject of those very charges that you have been testifying about to-day? A. Yes, sir.

Q. Have you got a copy of that report? A. Yes, sir.

Q. That was made out about the same time, or a little before the Boston report? A. Yes, sir.

Q. None of these matters that you have testified to to-day are matters occurring since the date of that Boston committee's report, are they? A. Yes, sir.

Q. Which ones? A. The matter of payment to Mr. Miller of \$2,500, which was paid to him for this report; the matter of \$3,500 that was sent to him to forward what was called the "Miller Life Bill."

Q. I thought that you testified that you didn't know anything about it? A. Except from the evidence; I was in the room when it was given; and the matter of a policy that is spoken of *here*; the Ganson policy.

Q. These are the only matters which you have testified on to-day, which are not in these examinations which have been passed upon by the Superintendent of the Insurance Department, and by the committee of the Boston policy holders? A. Yes, sir; I would state to the committee, that as far as this Boston policy holders' report is concerned, it is so inaccurate in some of its statements, that

knowing those gentlemen in Boston to be men of truth, I am satisfied they never would have signed the report if they had proper information; I said so to some of them; they make one statement here that is a direct falsehood, and I know they would not have done it.

By Mr. DARLINGTON:

Q. What statement is that? A. This copy, which I suppose was a full one, in some articles, and in letters which I have written—using this, I have cut it; so that accounts for the mutilation of this copy; there is one statement here, that Mr. McCulloh charges that the loan by the company to Seymour and North was, in fact and in substance, a temporary fiscal agency by this company for the State of New York; the company had nothing in the world to do with it; Mr. Winston did it in his personal capacity; I take that statement of fact from the trustees' report themselves, and from the record that such was the fact, that he did it secretly and in his private capacity; I take it also from the record of Albany, which shows that it was Frederick S. Winston individually, and not the Mutual Life.

By Mr. SEWELL:

Q. Do you mean to say that the record in Albany says Frederick S. Winston individually? A. It says Frederick S. Winston; we know Frederick S. Winston, and we know Frederick S. Winston, President of the Mutual Life Insurance Company.

Q. When you talked about the records of Albany, you went on and said that it said Frederick S. Winston, individually, and not Frederick S. Winston, president? A. I am speaking of Winston personally.

Q. Do you mean to say that it is silent as to his individual capacity? A. I do.

Q. You don't say, not in his official capacity? A. No, sir.

Q. You testified that it said individual and not official capacity? A. I simply mean—

Q. Will you please to tell me whether prior— A. Allow me to finish this; these gentlemen in Boston also stated that this is entirely in accordance with the charter; now, it is a direct violation of the charter.

Mr. SEWELL.—That is a difference of opinion between you and the gentlemen in Boston?

A. Yes; in another matter which these gentlemen adopted and published, you will find that young Mr. Winston was \$2,750 at the highest point.

By Mr. DARLINGTON :

Q. You have shown it was \$3,000? A. Was \$3,000; and that in March previous to his death he had received \$3,750 as bonus, I think, and that at the time of his death he actually had policies on his life for a considerable amount, as the accounts of his executors show; and I know that if this examination made by these gentlemen in Boston had not been an *ex parte* examination, without the proper opportunity to men who had been opposing the company to get at the facts, that they never would have committed themselves to make the statement in that report.

By Mr. SEWELL :

Q. I want to ask you whether you had ever seen it published prior to the publication in January, 1873, by Stephen English—which is one of the charges against him in this action—that the committee of the Legislature of 1870, which had appointed you to make this examination, and which had at its head Mr. Thomas Fields—

WITNESS—Dennis Burns.

Mr. SEWELL :

This says Thomas Fields,—“was pliable in Mr. Winston’s hands, and was a corrupt body of men;” and that Mr. Winston succeeded in paying them money, and submitting to a successful stroke of blackmail on their part. I will read the charge to the committee.

Mr. ABBOTT :

Who makes that charge?

Mr. SEWELL :

Mr. Stephen English; he is now in prison on account of it.

“This manly effort to effect a reform was met and defeated by the interested trustees subsidized by Winston, who possesses the art of using other people’s money to accomplish his own purposes. * * * The excitement created by this movement drew upon the company, about twelve months afterward, the penalty of a visitation from the Legislative Insurance Committee, with the disreputable Tom Fields at its head. The quality of its members may be readily inferred from

the notorious character of the Legislature for corruption at that time, and Mr. Winston found himself quite in his element in dealing with men of this stamp. The committee was exceedingly pliable in his hands, and, to oblige him, sat in secret conclave, and permitted no one to report or criticise its proceedings. The New York daily press denounced this "Star Chamber" arrangement as a successful stroke of black-mailing. What was investigated, what was found out, and how much was paid for the nothing that was done, outsiders have never been told, for no report was made, and Tom Fields & Co. departed richer, if not wiser men. This was Mr. Winston's second success in suppressing the revelations of his delinquencies. * * * But the man who has the control of upward of fifty-five millions of dollars is a great power in himself, and he has not scrupled to employ the money intrusted to his guardianship to shield himself from public exposure and just condemnation." I ask you whether you ever saw that charge in the public prints before you heard of its being published by Mr. English? A. No, sir; the newspapers, at the time, contained squibs about this committee; Tom Fields was attacked by the papers; I have heard of it in private circles, but not in newspapers.

Q. Did you ever, in any of your public attacks upon the administration of the Mutual Life Insurance Company, charge that Mr. Winston had used the money of the company for the purpose of paying black-mail to this insurance committee? A. No, sir; I never charged, in any publication I ever made, anything but what I knew to be a fact of my own knowledge; I have ignored stories that came to me; I thought I knew enough facts to show that he was an unfit man for president, and enough to make me unwilling to leave my interests in his hands.

Q. Did you ever hear this charge made publicly, that Mr. Winston said to Mr. English, "Mr. English, do you think that a professing Christian, like myself, would be guilty of such acts as are alleged against me by Mr. McCulloh?" A. No, sir, I never did.

By Mr. DARLINGTON :

Q. Didn't he make a similar statement to you about his being a professing Christian? A. My relation to Mr. Winston—I had known him a great many years, I suppose nearly thirty years—my relations were very kindly to him until 1869; I have no personal feeling whatever towards Mr. Winston; I did everything I could in the com-

Q. Then they return this money to the policy holders? A. Yes, sir.

Q. As having been in excess of what was needed? A. Yes, sir; they place it to their credit on the books.

Q. It is in the shape of a dividend? A. Yes; called a dividend.

Q. It may be applied to purchase further insurance, in which case a larger sum than the dividend is added to the policy, and it is only paid at death; or it may be applied to the payment of the premiums as they fall due? A. Yes, sir; to the diminution of the premiums.

Q. Where it is applied in diminution of the premiums, it reduces the premium receipts—the actual premium receipts—by so much as the dividend? A. Yes, sir; he has the value of the dividend for that purpose.

Q. Where it is applied to purchase additional insurance, it takes the place of money which would be furnished for that purpose? A. Yes; and increases the risk or liability of the company.

Q. Then, instead of being paid out as a dividend, and taken away by the policy holder, he is allowed to make use of it in payments to the company? A. Yes, sir; nominal payments; they are not actual payments.

Q. He is allowed to make use of it in what, except for this dividend, would have to be paid to the company? A. Yes, sir.

Q. If he did not have this dividend to make payments with, it would have to be in cash? A. Yes, sir.

Q. And this dividend reduces the amount of cash he would have to pay? A. That is just my point exactly.

Q. You consider it is wrong to charge this as paid out as a dividend, because a great portion of it is received back in payment of premiums? A. There is none of it paid back; it never leaves the company.

Q. It is called *having been paid out*? A. *There* is the simplest solution of it. [Witness uses three five-dollar bills in illustration.] I have got in my hand now fifteen dollars, and that is my premium this year, and that I am obliged to pay in cash; I will assume that I have commenced my transaction with the company, and *there* is the amount of my premium; it is fifteen dollars; now, that is actual cash receipts; at the end of the year the company finds that they should not have charged me but ten or eleven dollars, or any other sum, but we will make it ten dollars even-money, and that that five dollars was charged in excess; and therefore the next year they per-

mit me to use that five dollars, or credit it in the books as the excess of the year previous, and I pay ten dollars in to make good my fifteen-dollars premium.

Q. And the company call that cash received? A. Yes, sir, and put it *cash income*; it is five dollars twice over, in order to diminish the ratio of the amount that they have expended; that is what they are doing precisely; it is a simple fiction of book-keeping to make it appear like an actual cash receipt in both years.

Q. It does not put anything in the pockets of the officers? A. No, but it deceives the policy holders, because they suppose it is being very economically managed, when it is not; that is the effect of it.

Q. Do you know who first devised this method of book-keeping in the Mutual Life Insurance Company? A. My impression is, from Mr. Homan's testimony, that he was the one who suggested it.

Q. He was an eminent actuary, was he not? A. Yes, sir; but I have no faith in actuaries in these matters of account; I would not want to keep my accounts that way; I should denominate them as mathematical theorists.

Q. Do you think it is possible to carry on the life insurance business without actuaries? A. No, sir; to a certain extent, they are required to make mathematical calculations, which must be reduced to practical use in the companies; that is the object of their employment; Mr. Homans and I have had this matter over a great many times; and you will find, in this, the whole matter discussed.

By Mr. BLESSING:

Q. What is the actual cost of running that life insurance company? A. I cannot tell.

Q. Have you never seen it stated in the New York Times, in July, 1872, where it says it cost \$1,000,000? A. Their legitimate expenses must be very heavy; and their salaries and advertising, that are proper; and there are legal expenses that arise inevitably; and contingent expenses, that the company must pay.

Q. Rent and clerk hire? A. Yes; I think the last statement gives that pretty definitely; it is a mammoth concern; and, as a matter of course, the expenses must be large; that is natural; they give them here—advertising, taxes, medical examinations, salaries, law, printing and stationery, sundry expenses, office furniture, profit and loss, taxes on real estate; and then the company has taxes to pay in other States where they do business.

By Mr. ABBOTT:

Q. I would like to ask what their average rate of premium is? A. It depends altogether upon the life, and all the surroundings of it.

Q. As compared with other companies, do they charge higher or lower premiums? A. That was the whole subject of the last discussion and fight—the diminution of the rates of the Mutual Life; the other companies claimed that it should not be done, and a large number of the old policy holders objected to the change, and that change the company finally suspended; they did not carry it out; it is a question between the companies, which one can do the business the cheapest; as a matter of course, the one that does it the cheapest, does the business.

The committee here adjourned to Saturday, April 12th, 1873, at 10 A. M.

METROPOLITAN HOTEL, N. Y., April 12, 1873.

Present—Hons. C. W. Herrick, chairman, N. A. White, E. Townsend, Frank Abbott, T. J. Campbell, A. Blessing.

J. Thomas Davis, Esq., clerk.

O. T. Atwood, Esq., counsel for the committee.

Thos. Darlington, Esq., counsel for Mr. English.

Robert Sewell, Esq., and Judge John K. Porter, counsel for Mutual Life Insurance Company.

JAMES W. McCULLOH, recalled; *cross-examination continued by Mr. SEWELL:*

Q. About what time did you first begin to agitate the subject of change in the administration of the Mutual Life Insurance Company? A. In 1869.

Q. About what part of the year? A. Just previous to the election.

Q. In June? A. Yes, sir; unless you refer to a suit commenced in March, 1869.

Q. In March, 1869, you commenced a suit? A. I did; against Richard H. McCurdy and the Mutual Life Insurance Company.

Q. What was the cause of action embodied in that suit? A. I have the complaint at home; the cause stated was the bonuses paid to the officers, irregularly restored policies, and some other matters which I don't recollect at the moment.

Q. Then the cause of action stated in that complaint was the same application of the moneys of the company in bonuses to the officers of which you complained at the last meeting? A. Yes, sir.

Q. And the same restoration of the policies? A. Yes, sir.

Q. And that was in March, 1869? A. March, 1869; yes, sir.

Q. You sued as a stockholder? A. As a policy holder.

Q. On behalf of yourself and all other policy holders? A. Yes, sir.

Q. The papers were served on Mr. McCurdy? A. They were.

Q. And on the Mutual Life Insurance Company? A. I believe, as an officer, and in his individual capacity, they were served.

Q. Who were your attorneys and counsel in that suit? A. Martin & Smith.

Q. How long prior to March, 1869, had you known of the application of these bonuses, and the restoration of these policies of which you complained in that suit? A. Probably about a month or six weeks; that is, I speak now of knowledge; previous to that, I had seen statements in the newspapers and paid no attention to it.

Q. Your first knowledge, then, of these irregularities of which you complained, was obtained from publications in newspapers? A. No, sir; I had no knowledge obtained from newspapers.

Q. Your first information, then, of the existence of *any* irregularities? A. I will state that, like many other policy holders, everything of that kind that was said about the Mutual Life I disbelieved; I saw such statements made, but didn't believe it was possible that it would be done; I read them and passed them aside as mere gossip.

Q. You remember about that time having some relations with a Mr. Rhodes, who was then, or had recently been, an agent of the Mutual Life Insurance Company? A. I do.

Q. Mr. Rhodes had had a difficulty with the officers of the Mutual Life Insurance Company, had he not? A. Yes, sir; they had refused the settlement of his accounts, and changed the agency, I believe.

Q. And he resigned his agency, and was very bitter in his opposition to the officers? A. I think he was forced to resign his agency.

Q. The fact is, that he did resign it? A. I believe he did.

Q. And was very bitter about that time in his denunciation of Mr. McCurdy and Mr. Winston? A. Yes, sir.

Q. On account of matters arising out of his treatment as agent of the company? A. Not entirely so.

Q. For what other reasons than for reasons personal to himself

was he bitter to Mr. McCurdy? A. Shall I assign the reason he gave me?

Q. Yes? A. The reasons assigned to me by Mr. Rhodes was, that he considered both Mr. Winston and Mr. McCurdy as dishonest, and that they were not only depriving him of the moneys he was entitled to, but also taking moneys from the policy holders that they were entitled to; I give you now the substance of conversations and statements running through some time.

Q. Did he at that time tell you that Mr. Winston threatened to put him in Ludlow-street jail if he did not pay the money he owed the company? A. He did not; I think he made the statement that at one time they had threatened to arrest him, but there was nothing specific.

Q. Was not this suit brought by you for the purpose of forcing a settlement with Mr. Rhodes of some matters in dispute between him and the company? A. No, sir; I had no doubt it would accomplish that object; it did do it, too.

Q. Was not that one of the objects? A. Yes, sir; and the other was to remedy what I considered wrongs in the company.

Q. As soon as you accomplished the object of settling Mr. Rhodes' claim, you abandoned the suit, did you not? A. I abandoned the suit at the urgent request of Henry M. Alexander, acting as the friend of Mr. Richard H. McCurdy and Mr. Shepard Homans, the then actuary of the company, and upon their statements that any action of that kind on the part of the policy holders would be seriously detrimental to the interests of the company; on that ground I discontinued it, and Mr. Alexander paid all expenses; and I discontinued on the further understanding and representations made to me that Mr. McCurdy would, of his own volition, soon leave the company.

Q. Who told you that Mr. McCurdy would soon leave the company? A. I understood it in my intercourse there three or four days with the gentlemen who represented Mr. McCurdy and the Mutual Life; Mr. McCurdy was contemplating going to Europe as soon as Mr. Winston returned from California, and would sever his connection with the company; I was given to understand that that was his purpose.

Q. All through this period when you brought this suit against the company, and during these negotiations, was not Frederick S. Winston absent from this side of the continent? A. He was in California.

Q. Will you please to state, with some degree of precision, who it was that told you that Mr. McCurdy would soon leave the company?
A. It was in intercourse with those two gentlemen that I was given to understand that that was his purpose.

Q. What two gentlemen? A. I have named them; Mr. Alexander and Mr. Homans; now what their precise language was four years ago I cannot tell you.

Q. I do not ask for that; but I want to know which of the two told you that Mr. McCurdy was going to leave the company?
A. That I cannot answer; there were two interviews of two or three hours, on two or three successive days, between one or another, or both of these gentlemen, in which a great deal of discussion took place with regard to matters in the Mutual Life; and during that intercourse I was given to understand that Mr. McCurdy intended to leave the company.

Q. But you cannot, at this distance of time, tell which of the two told you so? A. No, sir, I cannot; I can only give you the impressions on my mind with regard to those interviews.

Q. Did you demand the resignation of Mr. McCurdy as a condition precedent to you withdrawing the suit? A. I considered Mr. McCurdy's conduct—

Q. I beg your pardon; I ask you if you demanded his withdrawal?
A. I stated most unequivocally to these gentlemen that as a policy holder I objected to Mr. McCurdy's continuing any longer an officer of the company, and assigned the reasons for doing it.

Q. Did you make that a condition of your withdrawing the suit?
A. Yes, sir.

Q. Did you waive that afterward? A. Yes, at the request of these gentlemen.

Q. Then you did not persist on the withdrawal of these gentlemen as a precedent to withdrawing the suit? A. I did not.

Q. Did you at that time insist that Mr. Frederick S. Winston should resign? A. I did not; I did not think he was as deep in the mud as Mr. McCurdy was in the mire.

Q. Did you know about the bonuses then? A. Not to the fullest extent; Mr. McCurdy at the time denied to my counsel that there was any truth in the allegations.

Q. What Mr. McCurdy told your counsel is not evidence; it is certainly not evidence that you can give; you say that he told your

counsel; were you present? A. No, sir; I had it from their representations.

Q. This committee on their last sitting specially ruled to keep out hearsay evidence; and I then pledged myself that you would be guided by that; let me suggest that you do not tell us what anybody said, except of your own knowledge? A. Very well.

Q. Then, I understand that you voluntarily abandoned that suit? A. I did, upon their payment of all expenses, and settling Mr. Rhodes' claim; which they did.

Q. Upon whose payment of the expenses? A. Mr. Alexander's.

Q. Mr. Henry M. Alexander was counsel for the Equitable Life Insurance Company? A. He was acting as the counsel for Richard H. McCurdy; and so stated to me.

Q. He was at that time counsel for the Equitable Life, was he not? A. I don't know whether he was or not.

Q. Did you know that he was connected with that company? A. Yes, sir, as a trustee or director.

Q. Was not a part of the representation that he made to you with respect to withdrawing this suit, that it was damaging very much the Equitable Life and other companies? A. It was not.

Q. It was not put upon that ground? A. It was not, because I would not have cared whether it would damage them or not.

Q. When did you next present any charges against the administration of the Mutual Life? A. I would like, if you will follow up the date, if you have no objections; you have asked me with regard to my opposition to the company; I would like to state what occurred subsequent to that.

Q. That was in March, 1869? A. Yes, sir.

Q. Subsequent to that what occurred? A. Prior to the election of 1869 I, with a large number of policy holders, held a meeting and nominated nine trustees, to serve as trustees for the ensuing four years, to be elected at the election in June; I called upon Mr. Winston, and stated to him that a large number of policy holders had become aware of facts connected with the company, and were dissatisfied, and especially so with his holding so many proxies, and urged him to make an arrangement with the policy holders who were dissatisfied, by which they might name a portion of the trustees to be re-elected, who should be approved by him, and that the ticket should be elected then without opposition; Mr. Winston refused, on the ground that he did not intend to permit any one to be elected, or

"the harmony of the board," was his precise words, to be disturbed by the introduction of those that he was not satisfied were friendly; I opposed at the election of 1869, with a large number of others, the election of the trustees nominated by the board of trustees, or the company's friends; not with any expectation of succeeding, but for the purpose of establishing the fact that the proxies of the company would be used by the officers, or the proxies, not of the company, but of the policy holders' proxies, would be used by the officers to defeat any attempt to place there persons not of their own selection; that fact was established by the proxies voted by Mr. McCurdy.

Q. How many votes were cast for your ticket at that election?

A. I have not the record; the opposition naturally caused a much larger attendance, as far as I am informed, than ever was at any other election, and of course brought out the full strength of the friends of the company; at one time during the election the opposition appeared to be gaining such strength that Mr. McCurdy settled the question beyond all contingency by voting on four or six hundred proxies, which was more than could have been obtained by the opposition if they had been allowed the whole day; and during that day several gentlemen objected to voting, on the ground that they were compelled to put their names upon the back of the ballot.

Q. Who objected to voting on that ground? A. There were several persons came to me during the day, and asked me if that thing could not be stopped.

Q. Name one? A. I cannot at this distance of time; I will state this, that I called the attention of Mr. George S. Coe to the fact, who was one of the trustees.

Q. When? A. At that time; and he said to me that it was certainly an unusual proceeding, and it had caused him to hesitate before voting.

Q. Did you see anybody who was required to sign their name on their ballot? A. I was required to put mine on.

Q. Did you object to doing so? A. No, sir; I held a ticket up to you, and said that as far as I was concerned I had no objection to showing what I was voting for; I thought the whole thing was wrong.

Q. Did you see anybody who objected to it? A. I was told by several that they did object.

Q. You did not see them object? A. I was not present; I was down in the room.

Q. Did you hear of anybody who objected to the board of election

on that day, against their name being put on the ballot? A. I don't know of any.

Q. Don't you know that the name was put on the ballot by the board, on account of the larger number of attendance, in order to facilitate voting? A. I did not ask the reason; I considered it an abuse of the privilege of the election by ballot; the fact was enough for me.

Q. Were you not told, without asking, that it would expedite your votes, and prevent the necessity of examining the votes to see if they had policies or not; and that, if anybody contested the election, it would be easily ascertained? A. I recollect the fact that I heard you make the statement.

Q. Do you know of anybody who was deterred from voting at that election by reason of that requirement of the board? A. I stated that there were three or four persons who came to me and stated they would not vote on that account.

Q. You cannot tell the name of any one of them? A. No, sir, not at this time; the day was an exciting day.

Q. That was the election of 1869? A. Yes.

Q. Do you know whether that regulation has ever been made use of since? A. I don't know that.

Q. Do you not know that it was not? A. I don't know that.

Q. Have you ever voted since? A. Once.

Q. On that occasion were you required to sign? A. I was not.

Q. Was it not the fact that at that election your ticket was beaten without any proxies? A. I have stated that fact.

Q. I didn't hear you? A. I believe I had already.

Q. The personal voters who came there outnumbered the persons in opposition? A. Yes, and we anticipated that they would.

Q. Did you prefer to the board of directors of the company, or the trustees of the company, any of those charges that were embodied in your suit against the company? A. Immediately after the election of 1869, a committee was appointed, of which Mr. John V. L. Pruyn was the chairman.

Q. Was that committee appointed at your request? A. No, sir.

Q. Appointed to examine your charges? A. Not by the resolution, it was not; you have a copy there.

Q. Which one is it? A. The report of 1869; I will read the resolution; appointed ostensibly to examine the assets of the company and other matters.

Resolved, That Messrs. J. V. L. Pruyn, David Hoadley, O. H. Palmer, Henry E. Davies and William E. Dodge be and are hereby appointed a committee to examine the assets of this company, and the amount and character of the same; and also to ascertain its liabilities on its policies, or otherwise, and report the result of such examination to this board."

Immediately I became aware of the appointment of that committee, I called upon Mr. Winston, and requested that a committee of policy holders should be selected to make an examination with these trustees, to inquire into the facts which I had charged against the officers of the company; Mr. Winston stated to me, a short time afterward, that he had preferred that request to the committee, and that they had declined to acquiesce in it.

Q. When, then, did you first get an examination of the matters that you complained of? A. The first examination that I got was in 1870, wasn't it?

Q. The Miller examination? A. Yes, sir; the Miller examination.

Q. In that Miller examination you testified to having commenced another action? A. Yes, sir; in February previous.

Q. It was commenced in February, 1870? A. I think the date is February; yes, sir; it was either in February or the very early part of March; that is the suit to which I testified the other day in direct examination.

Q. Between those two suits, was not a suit started, based upon affidavits made by you, in which the relief sought was the appointment of a receiver of the Mutual Life Insurance Company; and the application made to Judge George G. Barnard, *ex parte*, for the appointment of the receiver? A. Not to my knowledge was any application made; I will state the whole of the facts; in August, 1869, I was requested to call upon Mr. Aaron Vanderpoel, with regard to a suit that was about to be commenced against the officers of the Mutual Life.

Q. Who requested you? A. I was requested by Mr. James H. Rhodes.

Q. That is the same gent whom you took up this quarrel for? A. The same; I went to Mr. Vanderpoel and he requested me to give the information upon which he might draw a proper complaint, and stated to me the object of that suit, which was to force these matters into court for a settlement; I gave him, without any hesitation, the information, as he was a gentleman standing very high at the bar; I was also requested to consult with Judge Porter, who sits by the side of

me now, on one occasion, with regard to the same suit ; the complaint was drawn by Mr. Vanderpoel ; I was then requested to go to the office of Thomas Fields, to make an affidavit, which I was informed was to accompany the complaint ; I went, and the affidavit was given to me ; it was incorrect ; I altered it and verified it, and gave it to Mr. Fields ; on the same day, or the day subsequently, Mr. Winston sent for me, and asked me if I was aware of the fact that Mr. Fields was a rascal, and that the whole object of that suit was to force the company into the hands of a receiver ; I told him then—which was the fact—that I was utterly ignorant of the character of Mr. Thomas Fields ; but, if his representation with regard to the character of the man was what he represented, that I should immediately withdraw from all connection with the matter ; I made the inquiries, ascertained that Mr. Fields was anything but what he should be in reputation, and I insisted upon the return of my affidavit ; it was given to me, and Mr. Fields, in error, handed me the complaint ; I pocketed that, and refused ever afterward to give it back to him ; in the hands of Mr. Porter and Mr. Aaron Vanderpoel I was satisfied, but Mr. Fields, I was not ; I will state that in that complaint there was a prayer for a receivership, and that I asked my counsel, Martin & Smith, as to the effect of that prayer, and was informed that it was a usual form, or a usual thing to insert, but that it need not be moved for ; as I understood, its being in the complaint was not a matter of necessity that the receiver should be applied for, and much less granted ; that an application was made afterward to Judge Barnard, I was not aware.

Q. Who was the plaintiff in that action ? A. The People of the State of New York, through the Attorney-General, Mr. Champlain.

Q. Is that the one you spoke of ? A. Yes, sir ; I have the documents all at home.

Q. Why did you not go on with that suit, in the hands of somebody else ? A. I had no power over that ; I at that time determined to have nothing to do with any suit which I did not myself control entirely ; and for that reason I myself requested my counsel, on behalf of myself and those policy holders who were working with me, to form a proper complaint, and to bring suit in a proper manner, and in such manner as I conceived to do the least damage to the true interests of the company.

Q. You were aware, undoubtedly, that any suit of the kind that you would bring would damage the interests of the company more

or less? A. I had no doubt it would damage the reputation of the company temporarily, but I always separated the officers from the institution, believing that we could better afford to lop them off in the infancy of abuses than to wait until we could not control it.

Q. Do you not know that all your actions and efforts were made use of by rival companies to affect the standing and credit and business of the Mutual Life? A. I don't know it, except as I gathered it from the papers, in which there is a constant warfare between all corporations.

Q. Those papers in which that warfare was conducted seized eagerly the charges against the officers of the company, and made arguments against the company themselves? A. I am not aware of that.

Q. Did you never see that? A. Oh, yes; I see constantly charges that the sole purpose of the reduction of rates was to injure the companies, and so it is bandied about from one to the other.

Q. That brings it down to the time of the complaint in which you yourself was the relator? A. No, sir, the people were the plaintiff.

Q. The people themselves, and you being the relator? A. Yes; I didn't understand you; I delivered it at Albany, in the presence of Mr. Pruyn and Judge Allen, to Mr. Champlain; it was on Tuesday, I think.

Q. You testified that that was the last you heard of it, and you don't know anything about it? A. Mr. Hammond brought it to me for verification, and was very urgent that I should immediately verify it; I stated to him that Mr. Champlain had promised me that it should be sent to Martin & Smith, whom he had agreed should represent him; he urged me very strenuously to verify the complaint immediately; and I stated I would do it if he would go with me to Martin & Smith's office; we went to this office, and Mr. Martin happened to be out; Mr. Hammond urged very much not to delay him, as he was in a great hurry, and to go and get a notary; we went into the adjoining room, found a notary, and I verified the complaint, and Mr. Hammond slipped it into his pocket and started; he would not wait to see Mr. Smith; and I never saw the complaint afterward.

Q. Did you not know that the Attorney-General delivered the complaint to the Superintendent of the Insurance Department, and asked him to make a preliminary examination of the affairs of the company, to ascertain if such an action on behalf of the Attorney-General was

justified? A. I have no such knowledge; and should doubt its correctness, for the reason that Mr. Miller himself requested me to furnish him with a copy of the complaint, which I did.

Q. Mr. Miller, then, when he made the examination of the company as Superintendent of the Insurance Department, had a copy of the complaint which you made to the Attorney-General, furnished by yourself, as the basis of that examination? A. Not as the basis of the examination; but as a guide or for his use.

Q. As an indication of the charges which he was to examine? A. Yes, sir; and of which I made a brief.

Q. He did examine, according to your brief, *seriatim*, charge for charge? A. Yes, sir.

Q. You were there during the examination? A. I was.

Q. Cross-examined witnesses? A. I did.

Q. Produced witnesses and examined them on behalf of yourself? A. Yes, sir.

Q. What was the character of the examination, in regard to fullness and minuteness of the whole of it? A. I will state that all the examination of books and accounts, as far as my knowledge goes, were made by myself and Mr. Hand; Mr. Miller made no examination of books whilst I was there, to my knowledge; he may have done it afterward.

Q. I speak of your knowledge? A. Yes, sir; the examination of the witnesses was as full as I could make it, in the absence of any compulsory power on my part to compel attendance or to enforce answers.

Q. Did anybody connected with the company refuse to answer any questions you asked? A. Yes, sir.

Q. Who? A. Mr. McCurdy and Mr. Winston, both.

Q. What did Mr. McCurdy refuse to answer? A. The question to Mr. Winston was as to proxies, and to Mr. McCurdy; I will turn to the question, if you will let me have that book.

Q. They refused to tell you how many proxies they had of the policy holders? A. Yes, sir.

Q. Was not that the only question they refused to answer; that is the only question, isn't it, with regard to the proxies; it is not worth while to waste the time looking for it? A. Yes, sir; and I would state to the committee, that not being a lawyer myself—

Mr. SEWELL.—You are a pretty good lawyer.
—and inexperienced in cross-examinations, that it was with

difficulty that I got information that I wanted ; and as an adverse party to the company, it was not natural that any help should be given to me by anybody there.

Mr. SEWELL :

You know enough of the legal art, at any rate, to argue your case as you go along, and not to wait for the summing up.

A. I don't understand that this is my case at all ; it is not ; you asked me about the fullness of this examination ; I would state here that when I was in an account, to me that was one of peculiar interest, the door was shut upon my face, and I was refused any longer to go there and examine the accounts ; there was an old resolution, passed some years previously, that was resurrected and stuck upon the door the morning after the Legislature adjourned ; I wish I had brought my own copy, for I have it indexed.

Q. No matter about that ; the only question was as to the number of proxies they had ; what ground did they give for the refusal to answer that ? A. I will find that in a minute ; I can very easily define the reason ; they did not intend that I should know.

Q. Don't let us define anything ? A. They simply refused to answer the question ; you spoke of the fullness ; have you furnished the committee with a copy of this ? I want to call their attention to page 210 ; there is a mistake in regard to remarks that were made at said meeting, that the superintendent had corked me up ; indicating that I should not use any information there, when I declared my purpose to make any use of it that any honorable man might make ; it was evident to me that there was no intention to permit me to know anything more than could not be helped.

Q. The charges you made against the company were undoubtedly examined at that time, were they not ? A. They were.

Q. And the decision of the Superintendent of Insurance—the then superintendent—was given in writing, on the examination, was it not ?

Mr. DARLINGTON :

That is one of our charges.

WITNESS—The copy is correct.

Mr. SEWELL :

I am going to hand it to the committee, as evidence in the case.

Q. That is a copy of the report of the Superintendent of the Insu-

rance Department made upon those charges? A. Yes, sir; and I would be most happy, before the committee, at any time, to collate the charges and Mr. Miller's conclusions.

Q. At some other time, perhaps; but life is too short to do it now.

A. I would like to show the character of that report.

Mr. SEWELL:

I ask that that be marked by the committee. It is offered in evidence at this point. (Marked Exhibit A.)

Q. After this report was rendered, or while the report was in abeyance, and it had not been rendered, you were agitating considerably, among the policy holders of the company, with respect to a change in officers, were you not? A. Yes, sir.

Q. You repeated all these charges against the officers of the company, did you not? A. Yes, sir.

Q. Both in private speech— A. And in public.

Q. You went to Boston and addressed a meeting of the policy holders there, did you not? A. Yes, sir.

Q. And that meeting appointed a committee to visit New York and examine into the matters? A. That is all in the direct examination.

Q. I know it is in; is not that the report of the committee of the Boston policy holders? A. Yes, sir; this is a copy of it—

(A copy of the report of the committee of Boston policy holders is here offered in evidence. Marked Exhibit B.)

—this is a report to which I would also like to call the attention of the committee; I gave the reason for it the other day.

Q. During this time that you were engaged in fighting the battle of the discontented stockholders? A. Policy holders; there are no stockholders.

Q. Mr. English was on the other side of the fence, was he not? A. If I can judge of his remarks to me, he was.

Q. Were you in the habit of seeing his paper, The Insurance Times? A. Not at that time; no, sir.

Q. You did not know that his insurance paper, at that time, sustained the officers of the Mutual Life Insurance Company against these charges? A. No, sir; I did not see the paper; I don't think, until within the last year.

Mr. DARLINGTON:

I have his statement in the papers at the time, which show that that was so; I am perfectly willing to produce it myself.

Witness—I only know it from his own declarations to me.

Q. Mr. English was in very constant attendance in the room during the examination in regard to the Mutual Life Insurance Company, was he not? A. Yes, sir; I saw him half a dozen times coming in and out.

Q. Did he, or not, hear those charges? A. I really don't know; I paid no attention to him.

Q. What is your best remembrance on that point; was he not there, sitting, a listener and spectator of these proceedings? A. My recollection of it is, that he was in and out every day; almost every day, if not every day, during the examination.

Q. He conversed with you on the subject of your charges, did he not? A. No, sir; not a word during the examination.

Q. Did he, afterward? A. It was evident to me at that time that he was there to do me all the damage that he could.

Q. Did he do you any damage? A. I have heard him make a remark to one of the trustees, from which I gathered his purpose.

Q. What trustee? A. I don't know, but I believe it was Mr. Cornell; I was not positive about it.

Q. What was the remark? A. The remark was, as I heard it, that I might push away at that as long as I liked, I could make nothing; that was the remark that I heard him make; I was entering the room, and I heard him.

Q. What tone of voice was it made in? A. That that a man would naturally use that was inimical to a person.

Q. Was it indignant? A. To me, it was.

Q. You had an altercation with him, had you not? A. Yes, sir.

Q. In 1869? A. Yes, sir.

By the CHAIRMAN:

Q. What Cornell was that? A. I do not know; there was a number of the trustees; I knew several of them.

Q. Was it A. B. Cornell? A. No, sir; you will find the name; if it was Mr. Cornell, it is in *that*; I asked some one present if he knew who it was, and my impression is that they said it was Mr. Cornell.

By Mr. SEWELL:

Q. Samuel M. Cornell, if it was a Cornell at all? A. Yes, sir; there was quite a number there; it was after we had been down in the lunch room, and came up stairs.

Q. Was that on the election day? A. No, sir; that was on the examination.

Q. The election day happened afterward? A. No, sir, it did not; it preceded it.

Q. It was at the election in June, 1869, that he had been so violent to you, was it? A. Yes, sir.

Q. State what his conduct was on that occasion?

Mr. DARLINGTON :

There is no question as to that fact. The only bearing it has, is as to whether there was any collusion between Mr. English and this witness in bringing these charges. I don't see what relevancy it has in this examination.

Mr. SEWELL :

I am, I believe, cross-examining this witness upon matters which he has testified to in chief. He testified in chief—for what purpose I cannot tell; that is his own look out—that Mr. English and he had had a personal encounter. I want to get at it particularly. If they had not brought it in I would have no right to bring it in now; but as they have, I imagine I have a right to cross-examine on that point.

Q. Tell us just exactly what occurred between you and Mr. English? A. I was present near the door, watching each person who approached, and soliciting their votes for our ticket; Mr. English approached me—I didn't know who he was—and he said I had better mind what I was about, or something of that kind; I paid no attention to him; he came to me again, and I said to him, "Now, I wish you would go away and mind your own business;" and he said to me, "If you ain't careful, I will smash your face," or something of that kind, and I asked then who this man was, and I was told; he evidently was in a passion; and I said then to him, "If you don't behave yourself, I will report you to the officers, and if they don't remove you, I will have you removed by a policeman; he then repeated the threat again, and I said to him he was not big enough to do what he threatened; I stepped up and asked Mr. Elliot or one of the clerks to please go to Mr. Winston or Mr. McCurdy, and say that this man English was behaving himself like a blackguard, and I would have measures taken to stop him, as we were gentlemen, and presumed to know our rights; I think I made the remark to him that he seemed to think he was in the sixth ward, amongst politicians; I give the words as near as I can give them.

Q. Was that the first time you had ever seen him? A. Yes, sir; the first time I had ever seen him.

Q. What tone of voice did he first address you in? A. He was angry when he came to me; I had evidently been pointed out to him; as, I suppose, a good many other persons said to him that I was the leader of the opposition.

Q. Did he not advance toward you in a very threatening attitude and in a denunciatory tone of voice? A. He did.

Q. Did he not make upon you the impression then of being a very violent person?

Mr. DARLINGTON :

I object to the question. It seems to me that all the good that can be gained by cross-examination on this point has been obtained. I asked the witness his personal relations with Mr. English, to show that there had been no such personal relations between them as to induce any idea of collusion and conspiracy. It seems to me that they have followed it up as long as any benefit can be derived from it.

Mr. SEWELL :

If I rightly understand the object of this inquiry, it is to ascertain whether Stephen English, now in jail in Ludlow street, is there properly, under a process of the courts of this State, issued regularly; or whether he is there, being imposed upon by the power of the plaintiff in this case, or of the corporation of which he is president. That, I believe, is the subject-matter of this inquiry. I propose to show, by this witness on the stand, that Stephen English is a violent scoundrel and blackguard, as the witness has testified; that that is his character and was his character four years ago; that, consistent with that character, he has reviled the plaintiff in this action, in book after book and journal after journal of his obscene publications; that he has not been limited to free speech or free commentary upon the acts of the plaintiff in this action, but that he has gone outside of every decent regard for the feelings of this community and of this individual, and has made himself an outlaw. I submit that the question is a proper one; and that if I can show, by their own witness upon the stand, that Stephen English is of this character—a wild, a violent man and blackguard, as Mr. McCulloh has characterized him—that I have laid the foundation to show you that he is properly in jail and ought to stay there. I submit that, to rule out this question, would

be to violate the dearest rights of the plaintiff in this action, and to violate justice and to set aside equity.

And here now I ask, in the name of freedom ; I ask in the name of the personal liberty of Frederick S. Winston, that this question be put, and that you get at the truth of this matter. What sort of a man is in jail, and what he has done to place himself in jail, and what his character has been that has led him to jail, is what we want. Let us have it all.

Mr. DARLINGTON :

Before the committee decide (perhaps I may be in error as to the question to be decided here), allow me to say a few words. I had not supposed that it was the question of the personal liberty of Mr. Winston that was being investigated. I had not supposed that he was the person who had made the petition to the Legislature, and it was to investigate any charges as to his imprisonment. What I had supposed was before the committee was the statement that Stephen English, by an abuse of process of law, has been arrested and imprisoned for publishing, not blackguard and obscene statements, but temperate, moderate, unvarnished statements of fact in regard to Mr. Winston, which Mr. Winston has himself published concerning himself, which had been open and notorious matters of remark throughout the community ; and that for merely repeating these statements—common property of all men—which we wish to show to be true, and which we *have* shown to be true, by the testimony of Mr. McCulloh before this committee. A charge having been made by this plaintiff that Mr. McCulloh, our witness, was in collusion, combination or conspiracy with Mr. English, to defame Mr. Winston, I asked the witness in regard to that charge which they had made, as to what his personal relations were with Mr. English. Now, I apprehend, that so far as that was a legitimate subject of inquiry, to ascertain whether that statement was true or false, it was a legitimate subject of cross-examination, namely, to show whether the relations between Stephen English and the witness on the stand were such that the witness might be suspected of undue bias or prejudice in his favor. To that extent they had the right to make this cross-examination, and I made no objection. But when they attempt to bring up other things against him, for which he is not imprisoned, and make this from being an investigation into the alleged wrongs committed by Mr. Winston, to be a general investigation in regard to

Mr. English's habits or private life—while I am perfectly willing to meet that when that is the proper subject of discussion—I am not willing to have this investigation led off in that direction.

The CHAIRMAN :

The committee decide to sustain the objection, as it is not exactly pertinent to the examination, as we look at it.

By Mr. SEWELL :

Q. After this altercation with Mr. English, when did you next have any personal relations with him? A. My impression is that it was about some time during the month of September or October of last year; that was the first time that I saw him; it was during last fall.

Q. In the meantime, from the time of the election in June, 1870, which followed the examination of Mr. Miller and of the Boston policy holders, you had had no further agitation of these subjects?

A. As far as I am concerned?

Q. I say, you? A. No, sir; I found that a large majority of the policy holders considered it as hopeless; that whilst the proxies were held in such numbers, and the trustees not willing to meet the thing, as we considered, fairly and squarely.

Q. These proxies that you speak of, are proxies of policy holders?

A. Yes, sir.

Q. Intrusted to Mr. Winston? A. Obtained by the agents.

Q. How do you know that they are obtained by the agents? A. Only from information received by me; I received a letter from Providence stating that they had been got by agents.

Q. State the gentleman's name? A. I don't know.

Q. Did it state his name? A. No, sir.

Q. It was an anonymous letter? A. Yes, sir; it was a letter which I showed to the brother of the agent and asked him to ascertain who wrote it.

Q. And that knowledge that these proxies are obtained by the agents comes to you only by means of that anonymous letter? A. No, sir; I was told in Baltimore.

Q. State by whom? A. By Mr. Nicholas Pennyman, and Mr. Mayor, and a large number of gentlemen, that Mr. Brazie had applied to them for proxies, and a number of them had given them; I also ascertained that it was the habit in Boston to give proxies to the

agents; I also learned it from Mr. Harry Homans, who was formerly agent at San Francisco; he always obtained them where he could and sent them on.

Q. In September of last year, when you met Mr. English, what was the subject of your conversation, if it had any relation to these matters; of course, if it does not, I don't want it? A. He came to me with an article he had written in regard to bonuses, and asked me if that was the correct amount.

Q. That was the same conversation you have testified to here, was it? A. Yes; I had met him in the street, and he asked me questions, but I always avoided interviews with Mr. English; naturally would do so, after what occurred.

Q. Was there any other reason, except what had occurred between you personally for that? A. I didn't wish to become identified with him; I regarded my own action, from the start, as that of a policy holder of the company, and I had a right to make objections unless they were proper, and use every legitimate effort to correct what I considered abuses.

Q. Why did you not join with Mr. English in his action against the officers? A. I had lost all faith in joining newspapers in regard to the company; I thought they could all be bought; perhaps in making that expression I go too far when I say "all bought up;" they are all liable to be controlled and influenced by the use which the company makes of the money in advertising, and in paying for the insertion of articles publishing these reports, and paying large sums for them; it is natural that a newspaper, under such circumstances, would not care to place itself in antagonism to those from whom they receive the favors; some may be bought out directly.

Q. Were you mainly impressed with this idea that English could be bought? A. I had the impression that he belonged to the Mutual Life, from his whole conduct.

Q. Did you continue to have that impression after he commenced attacking the officers? A. No, sir.

Q. After that interview that you speak of, when did you commence seeing him? A. I can't state the dates, but I saw him occasionally.

Q. How long afterward? A. Probably a month; before his other paper came out.

Q. Did you see him along about December, 1872? A. I can't say; I think it is very likely I did.

Q. Did you see him just prior to his arrest in January? A. Yes, sir.

Q. Did you meet him by appointment? A. No, sir; oh, wait a moment; I saw him, but not by appointment; he sent me a message that he would like very much to see me, and I stated that I could not go; he was in Jersey City; I sent word that I could not go there; if he wanted to see me he could find me any morning at the ferry.

Q. He met you at the ferry, did he? A. I think two or three days afterward he met me at the ferry in New Jersey.

Q. Did he then state to you anything about orders of arrest being out for him in New York? A. Yes, sir.

Q. Did he state how he got the information? A. No, he did not; if I remember, he stated to me that there were two orders for arrest.

Q. Did he ask you to become his bail? A. No, sir; he asked me if I could assist him in getting bail.

Q. What did you tell him? A. I told him that I thought if he was illegally and improperly arrested, there would be no trouble in getting bail; I presumed it would be a moderate amount.

Q. Did he tell you what the bail was fixed at? A. No, sir.

Q. Are you sure of that? A. No, sir; I went to Jarvis' office to find out what the amount of the bail was.

Q. Who did you see there? A. I did not see anybody but a boy there; Jarvis was not there.

Q. Mr. English was at that time under bail for \$10,000 to answer in another suit, was he not? A. I don't know that.

Q. Didn't he tell you so? A. No, sir.

Q. He did not converse with you about that? A. No, sir; we didn't talk more than two or three minutes; I was standing on the boat and he on the pier, as the boat was going out..

Q. When did you next see him? A. Some time after that I saw him in Mr. Darlington's office.

Q. Did you then furnish him with information on which Mr. Darlington drew an affidavit, asking for a discovery? A. No, sir; I think that was framed before I got there.

Q. What is your best memory? A. I will tell you what I did do: I stated to Mr. Darlington at the time, that as far as any information that I had in my possession, that he could properly ask for, he should have it.

Q. Didn't you then tell him what questions you wanted to put to Mr. Winston upon the stand, upon our *ex parte* examination? A. That I wanted to?

Q. Yes? A. I had no wish about it.

Q. You had none? A. None whatever.

Q. Did they ask you what question they ought to put? A. Mr. Darlington may have asked some questions.

Q. Did he or not? A. I can't tell you; I gave him information without hesitation.

Q. You furnished him with matters pertinent to this action? A. I did, of what I considered abuses in the company.

Q. This was after the arrest? A. Yes, sir; I felt and I thought he had a perfect right to ask them; I will state that before I went to Mr. Darlington's, I went to reputable lawyers to ask whether Mr. Darlington was a reputable lawyer; I only want to show the committee that I was cautious not to place myself in an improper position.

Q. Have you contributed anything to the defense, in this suit? A. No, sir.

Q. Have you paid Mr. Darlington nothing? A. No, sir; I paid some expenses of my own; I propose to pay this gentleman (indicating stenographer).

Q. To pay the stenographer's fees? A. Yes, sir; and some copies of papers I had made.

Q. You gave no money to Mr. Darlington? A. I gave him \$250, to be used for any purpose connected with it.

Q. How long ago? A. About a month ago; Mr. Darlington stated to me that Mr. English had no money, and there were necessary expenses to defray for which he had not the money, and I gave him \$250, and stated to him that I was under no objections to paying; I am paying for this, too (stenographer's copy), as I propose to keep a correct record of it, as far as I am concerned.

Q. You have visited Mr. English in jail, have you not? A. The day after we left here I did.

Q. The last day? A. The last day.

Q. Have you before that? A. No, sir, never; and I went *then* at the request of his counsel.

By Mr. DARLINGTON:

Q. I asked you a good while before? A. Yes, sir, you had; you asked me half a dozen times, and I refused to go.

By Mr. SEWELL:

Q. With respect to the restoration of the Winston policies, does your examination of the matter show that Frederick S. Winston,

the president of the company, in any way interfered to influence the action of the committee which restored those policies? A. The record shows me, most unmistakably, that the thing was brought about by Mr. Richard H. McCurdy; it was initiated by him; and that Mr. Winston subsequently made himself a party to it.

Q. Mr. Winston accepted the trusteeship for the children; is that what you mean by making himself a party to it? A. No, sir.

Q. State what you mean by making himself a party to influencing the committee? A. I don't say that; I say he made himself a party to the transaction.

Q. He accepted, as a trustee, what the committee granted, didn't he? A. The committee recommended.

Q. And the board adopted? A. The board adopted, and Mr. Winston, with the full knowledge of all the facts, acquiesced in what was a wrong, when his duties as a custodian of the trustee funds should have prompted him to inform the board of trustees what they were really doing; no other policy holders ever could get such a thing done.

Q. I don't know about that? A. I know it.

Q. You testified here that such a thing was done for Judge Bradford himself? A. I testified that in the case of Judge Bradford, that an irregularity and wrong was committed in his case, and as far as I could ascertain, from the whole record, and from Mr. Winston's own admissions there, in his testimony, it was done by an arrangement between Mr. Winston and Judge Bradford; where the law was violated in the first place in buying the policy, and more was paid for it than it was worth, and it was reinstated when Judge Bradford was approaching his death.

Q. If it was illegal to purchase the policy in the first instance, as you claim it to have been in the Bradford case— A. Yes, sir.

Q. The company had no right to purchase it? A. That is Mr. Winston's own sworn statement.

Q. I am assuming it; now, were they not bound to make restitution of that to the estate of Bradford, if it was demanded, the purchase being illegal?

Mr. DARLINGTON:

I object, unless he says the restitution to the persons to whom it belonged; it does not appear that the restitution was made to Mrs. Bradford, but to the executors of Mr. Bradford.

Mr. SEWELL :

As long as Mrs. Bradford don't claim that she has been wronged—

Mr. DARLINGTON :

I object to that.

Mr. SEWELL :

I will alter the question : if it was purchased illegally, it was not a proper thing to rescind the purchase and give back the money and restore the policy ? A. You want me to state the facts just as I gathered them ?

Q. I want your construction of this transaction ; the committee can read them from the book themselves ; Mr. McCulloh has given us his construction of all those transactions and we want this one ?

Mr. DARLINGTON :

I am perfectly willing that he should give his construction as to any facts in the case ; but not on a hypothetical case ; they may ask him whether it was right to restore this policy to Mr. Bradford's executors ; about that I am perfectly willing he should give his opinion.

Mr. SEWELL :

That was the question I asked.

Mr. DARLINGTON :

I am perfectly willing to take his answer to that.

WITNESS—I will state that the purchase of the policy from Mrs. Bradford was in violation of law, and that she was paid more for the policy than she was entitled to receive for it.

By Mr. SEWELL :

Q. Was not that money received back by the company and the surrender of the policy canceled ? A. That policy was surrendered for its surrender value, be it more or less ; it was therefore null and void ; it was dead.

Q. Not if it was illegally surrendered ? A. In equity and in justice, as far as the other policies were concerned.

Q. It could not be ; you see we are going into deep waters when you get to expounding the law ? A. I am not expounding the law ; I am stating the fact that that policy was surrendered and paid for.

Q. You say illegally surrendered and paid for? A. I do.

Q. It was illegally surrendered and paid for? A. Yes, sir.

Q. And then it was restored? A. It was restored.

Q. The money paid back and the policy restored? A. The money was refunded by Judge Bradford, under circumstances which was a wrong to the policy holders.

Q. What circumstances? A. He was known at that time to be stricken with a disease of which he died within a very short period.

Q. Do you know that to be the fact? A. I know that from the sworn statement of Mr. Sheppard Homans; he was then on his death-bed when that policy was restored, and it was paid as a death claim; if I should surrender a policy as a policy holder, no matter whether illegally or legally, and wanted it restored, that company, very justly, would demand that I should be passed by the medical examiner.

By Mr. Atwood:

Q. That is the rule of all cases? A. Yes, sir; to restore the policy of a dying man is a fraud upon the other policy holders.

By Mr. SEWELL:

Q. I find here, in your answer to a question asked by Mr. Atwood, counsel for committee, this language: "Mr. Winston was a bankrupt?" A. Yes, sir.

Q. Do you know what a bankrupt means? A. Yes, sir.

Q. State your definition of it? A. A man who is unable to pay his debts—insolvent.

Q. Were you ever insolvent yourself? A. Yes, sir; I speak from experience of what a bankrupt is; it makes no difference; I have no objection to answering it; they published it in the papers in St. Louis; the same fact.

Q. Mr. Winston never took the benefit of the bankrupt act, that you know of? A. Not that I am aware of.

Q. When you say that he was a bankrupt, you don't mean that he had taken the benefit of the bankrupt act, or had been legally declared to be a bankrupt, but that he was in insolvent circumstances, and could not pay his debts? A. That he was an insolvent debtor; I gathered that information from his own testimony, of which I have a copy.

Q. You have never made it one of your public charges against Mr. Winston and his relations to the company, that he was a bankrupt?

A. No, sir; I have always endeavored to confine myself strictly to the relations of policy holders to officers.

Q. You never went into the private relations of Mr. Winston, in any of your charges against the company, to persons outside of the company? A. I never wished to do that.

Q. You never did that, then? A. You know as well as I do.

Q. I know it; I want to get at the fact; but Mr. English did? A. That is in my statement.

Q. Agents of the companies, as you are aware, are paid by commission upon the business done? A. Yes, sir.

Q. They do not receive any commission unless they do the business? A. No, sir.

Q. They are not paid salaries? A. They are paid commissions or brokerages.

Q. Then this Mr. Little, who was in bad health, and was obliged to be placed in the asylum, and was paid certain amounts while he was there in the asylum, was not paid a salary for the time he was in the asylum, but was paid a commission upon the business that was done, either by himself or by persons in his employment? A. Done through his office.

Q. He had competent persons, while he was in the asylum, to carry on business for him at his office? A. That, I don't know.

Q. He had persons who were able to do a large amount of business? A. That, I don't know.

Q. Don't you know that it was a large business that was done, from the amount of commissions that were paid? A. Yes; I know it was a large business, but how it was obtained, whether through his agents or other influences, I don't know.

Q. Do you know that a dollar was paid to Mr. Little for work that was not done? A. I don't know anything about that.

Q. Do you know that a dollar more was paid to Mr. Little than was paid to other agents of the company? A. That, I don't know.

Q. Do you know whether or not the agents of the Mutual Life Insurance Company are paid as large commissions as the agents of other companies? A. That, I don't know.

Q. Do you know that one dollar of the funds of the Mutual Life Insurance Company were lost or malappropriated by these payments to the agent, Mr. Little? A. I do not; my whole objection to that was——

Q. That he was an improper person to remain an agent? A. Yes;

and that no one else but a brother-in-law of the vice-president ever would have been retained, with the mental capacities and difficulties that that man had.

Q. There was no charge that the money was squandered on him, was there? A. I consider him as entirely an imbecile.

Q. He was able, as an imbecile, to do a very large business? A. I don't know that he did it.

Q. Was not a very large business done in his office? A. Yes, sir; the company could itself divert the very large amount of business into his hands.

Q. Do you know of its being done? A. No, sir, not of my own knowledge.

Q. Did he not have a large number of sub-agents under him? A. I never went into his relations at all—in his office.

Q. You know that he could not have got the business without sub-agents, don't you? A. Yes; I preferred not to mix myself in that contest between Mr. Little and the former agent, which was a contest; it was none of my business; I didn't care anything about it.

Q. Mr. Rhodes, with whom you are intimate, and Mr. Little, had been or were in partnership as agents of the company? A. All I have any knowledge of, that is from the statement—

Q. Of Rhodes made to you? A. Yes; and from statements made in the office by Mr. McCurdy and others.

Q. There was a bitter personal fight between Mr. Rhodes and Mr. Little? A. Yes, sir.

Q. Growing out of their relations as partners in business as agents? A. I think more upon the manner in which he was foisted upon Mr. Rhodes and the amounts that Mr. Rhodes was compelled to disgorge to him in order to keep the business himself; he was put as a quarter upon Mr. Rhodes.

Q. Who said that, did you say? A. I think Mr. McCurdy did.

Q. Do you know anything about that? A. No, sir; only from information gathered here and there.

Q. Only from hearsay evidence? A. No, sir; not entirely.

Q. Tell us what, except hearsay evidence, you have to show that Mr. McCurdy quartered his brother-in-law upon Mr. Rhodes? A. The character of their action at the time of the suit in March, 1869, and the efforts then made to compromise the difficulty, in which I was a party attempting to settle the difficulty between Rhodes and his partner.

Q. Mr. Winston was not mixed up in that, was he? A. No, sir; he was then in California.

Q. He had nothing to do with the Little or Rhodes embroglio, that you know of? A. Not to my knowledge.

Q. These bonuses that have been spoken of as having been paid to the officers of the company, were a percentage upon the dividends? A. Yes.

Q. I think you testified the other day that the bonuses were paid by the board of directors in the regular way in which all the other business of the company was done, upon the application of the actuary of the company and the medical officer of the company? A. That was the initiation of the business; yes, sir.

Q. Do you know whether Mr. Winston had anything more to do with this bonus business than any other officer or director of the company?

Mr. DARLINGTON:

Do you mean by the director, the trustee?

Mr. SEWELL:

Yes, the trustee.

A. From such knowledge as I have, my belief and my conviction is, that it was intended more for the benefit of Mr. Winston than any other officer, or all the others put together.

Q. Was it not stated by Mr. Homans, the actuary? A. It was initiated upon a request of Mr. Homans and Dr. Post for an increase of salary.

Q. You think they intended, when they made that request, that it should be for Mr. Winston's benefit more than their own? A. No, sir; I think Mr. Homans was prompted to make the request for the increased salary, and I think the scheme of a bonus upon the dividend was a very shrewd device of Judge Bradford.

Q. You do not think it was a device of Mr. Winston's, then; there is no evidence that has been brought to you, to show that it was a concoction of Mr. Winston, originally devised by him? A. I stated that I believed it was an invention of Mr. Bradford.

Q. Isn't it a common thing among life insurance companies to pay the officers a percentage, either on the business done by the company, or on the profits of the company? A. I have no knowledge of any other company whatever.

Q. You don't know anything about the course of business among life insurance companies in that respect? A. No, sir; I never made it my study.

Q. You said that Mr. Babcock, one of the directors, a member of the finance committee of this company, is a large stockholder in the Indemnity Company? A. I said I believed that was so.

Q. And that the company kept a balance of cash there? A. To my belief they do.

Q. Do you think that is done, or was done, by the action of the board of directors and finance committee, or by the individual action of Frederick S. Winston? A. The information that I have on the subject is, that a discussion arose in the finance committee, and possibly in the board, with regard to the propriety of making a deposit of funds in that corporation.

Q. It occurred in the board? A. Or finance committee.

Q. Did not the board or finance committee order it? A. I really cannot tell you to what extent it went; the question being asked as to the propriety of making a deposit without security, taking the responsibility of the Indemnity Company, without further security.

Q. You do not mean the committee to understand you as saying that Frederick S. Winston, the president of this company, arbitrarily puts money in that company, of his own will, without sanction of the board of trustees or finance committee, do you? A. I do not; I think there are a certain set of gentlemen there who go through all the regular forms to accomplish their own personal objects.

Q. This Husted loan that so much has been spoken of, was it not the fact, as developed upon the investigation before Mr. Miller, that Mr. Husted left \$40,000 of United States bonds with the company when he obtained the \$30,000? A. The exact amount could not be fixed by Mr. Husted or Mr. Winston, either one; it was claimed by them both that he had left there certificates of indebtedness.

Q. To the extent of \$40,000? A. He thought about \$40,000, I think.

Q. The subject of that loan has been investigated by the board of trustees at least once since, has it not? A. Since this examination?

Q. Since it occurred? A. It was examined in November, 1864, by a committee appointed by the board.

Q. They found nothing irregular in the matter, did they?

Mr. DARLINGTON:

We have the report of the minority here.

A. This is a statement of facts in which all the committee joined; the whole five signed a statement of facts, in which they make the statement that the money, when paid to Mr. Husted, was charged to United States stocks, and that when it was returned it was properly entered as received from Seymour L. Husted for United States stocks; but, in the report made by the clerk, for the use of the finance committee, the proper entry was erased by direction of the president, and the money included as a receipt from premiums.

Q. Does it state that it was included as a receipt from premiums, by direction of the president? A. Yes, sir; those are the exact words; if you have the letter, I have quoted the exact language; it struck me very peculiarly that the trustees should themselves say that, by direction of the president, the clerk made a false entry; and "subsequently they found nothing to condemn, and much to praise."

Q. This slip of paper that you spoke of, was a mere memorandum laid upon the table? A. It was a weekly statement that was required to be prepared in the company, showing all the money received during the week, and from what sources, and all the expenditures, and for what purposes, and the balance on hand, to guide the finance committee in their disposition of the funds.

Q. Do you know John H. Bewley? A. Yes, sir.

Q. He was at that time book-keeper for the company? A. Yes, he so stated.

Q. Were you present when he was examined in this Miller examination? A. Yes, sir.

Q. Was he examined by yourself? A. Yes, sir.

Q. Did he not use this language in answer from a question from you, asking him to state what he knew about the Husted loan: "A. Mr. Sands first brought the matter to my notice, by stating that he had made out the usual financial statement for the finance committee—which is furnished every week, I believe—and that he had put in that \$30,000 received for U. S. securities, of indebtedness redeemed; he entered that as received on the debit side of that statement; showing the balance on hand the previous week, and the receipts during the week, the payments, and then the balances, as a basis for the committee to loan upon; among the receipts during the week, were \$30,000, collected U. S. securities redeemed; Mr. Sands stated to me that he had laid that on Mr. Winston's desk, and that he objected to this entry being made, stating it was incorrect, and stating there were no U. S. securities

redeemed, and he asked me what I would advise him to do; I told him—to the best of my belief, I recommended him at the time—to do what he was instructed in the matter; he stated that Mr. Winston did not want them to come into the receipts in this form, and asked me in what other form it could come in; I told him it might be thrown in among the premiums; that it should come in in some form, and it didn't much matter in what; Mr. Sands, I understood, a little to demur to that, saying that it was not very regular; I recollect very distinctly relating the anecdote of the soldier who said he thought, he thought; and the officer said he had no right to think, he was to act; so he went and crossed the entry of the payment of bonds, and added \$30,000 received as premiums, and put the very same statement, not a new one made out, before Mr. Winston; and in that form it went into the finance committee, and returned?" A. I believe that is his statement; yes, sir.

Q. Mr. Bewley occupied, immediately before this, the position which Mr. Sands then occupied, did he not? A. Yes, sir; I believe he did.

Q. And it was quite natural that Mr. Sands should go to Mr. Bewley for instruction? A. Yes, sir; I suppose so; if you will look on page 82, you will there find the testimony of Mr. Sands himself, which, if the committee will permit me to do so, I will read.

Mr. SEWELL:

I have no objections to your reading it.

WITNESS (reading)—“William P. Sands duly sworn, examined by Mr. McCulloh.

Q. Were you a clerk in this office in July, 1864? A. I was, sir.

Q. Was it your duty to prepare a statement for the use of the finance committee, showing the weekly balances, the receipts during the week, the sources from which obtained, and the net balance at the end of the week? A. It was.

Q. Did you prepare such a statement during the month of July, which contained the item of \$30,000, money returned from Mr. Husted? A. I did, sir.

Q. When you prepared that statement, did you credit it to U. S. stocks? A. I did not, sir.

Q. How did you credit it?

By Mr. SEWELL:

Q. Mr. Sands, have you got the statement? A. I have.

Q. Produce it? (Statement produced.)

By the SUPERINTENDENT :

Q. In what item is that \$30,000 included there, if in any? A. Under the head of 'Premiums.'

Q. This \$54,000 item? A. Yes, sir.

Q. It is embodied in that? A. It is embodied in that.

By Mr. McCULLOH :

Q. This is the original, is it? A. That is the original.

Q. And that \$30,000 is in there? A. It is in there.

Q. Did you know that it was not received from premiums at the time? A. I did, sir.

Q. You knew that that statement was false? A. I don't acknowledge that that was false, precisely.

Q. Was it a true statement that that was received from premiums? A. No, sir; it was not.

Q. Then it was false, was it not? A. Well, you might call it so in that sense.

Q. Why did you make it? A. I had it on the statement at first, as you will see; there is an erasure; the figures themselves have not been erased.

Q. You had entered it to 'stocks'? A. I had precisely as it is on the cash-book which you have seen.

Q. Why did you make that alteration? A. I was requested to make the alteration by the president.

Q. And to change it to 'premium,' as having been received from 'premium'? A. No, sir; he didn't request me to put it in any shape.

Q. Only to change it from the shape in which it was? A. He told me it was not in a correct shape; I couldn't understand what he meant precisely; the committee were waiting, and there was no time to make another statement; and it went to 'premium,' because that was the last item—it was put to that.

Q. Did you go to Bewley and ask him what shape it was to be put in? A. I can't say I did.

Q. Will you say that you didn't? A. No, sir, because I can't remember.

Q. The president requested you to put it in some other shape other than what was the fact? A. No, sir, he didn't; he didn't give me any directions.

Q. You had put it in correct shape at first? A. Yes.

Q. And then he directed you to alter it? A. He directed me to alter it.

Q. Then as the statement left your hands, it was an incorrect statement? A. Yes.

Q. And you knew it? A. I knew it.

By Mr. SEWELL:

Then the superintendent interrupted him, and said:

‘You mean to say that the president merely suggested to you that that should be put in some other form?’ A. As near as I can recollect, that was about what he intimated; I can’t remember that he gave any positive instructions.

Q. And that you put it under the item of ‘received from premiums’ without any intimation from any one that that should be done? A. Yes, sir; I put it in that shape, simply from not knowing to what else to put it.

Q. Did you know that the item, as you had entered it in the report, was objectionable for any reason? A. No, sir; I did not.

Q. Did you know of any reason why it should not appear in the report in that form? A. I did not, sir.

Q. And none was given to you? A. None was given to me, beyond the fact that it was improper in some way.

Q. It was what? A. It was incorrect or improperly put down.

Q. Transaction? A. Oh, no; nothing of that, sir.

Q. It appeared by the entry to be money received from stocks, did it not? A. It was so on the cash-book; yes, sir.

Q. You knew of no authority by which the stocks had been sold; was that it? A. Well, I can’t recollect whether I knew anything about it.

Q. Have you ever made any entry that you knew was not strictly correct since? A. No, sir.

Q. Any other instance of this nature? A. No, sir; none whatever.

Q. Have you been employed here ever since? A. Yes, sir.

By Mr. McCULLOH:

Q. Did you ever do it before, Mr. Sands? A. No, never did.

By Mr. SEWELL:

Q. At the time you exhibited this statement to Mr. Winston, what was on that line where the erasure appears on? A. I could not repeat it word for word, but it was taken from the cash-book.

Q. It referred to that \$30,000? A. It referred to the sum of \$30,000 received from S. L. Husted.

Q. When you saw that item on the cash-book, did you, from anything that you saw about it, consider that it was an item, the existence of which was meant to be concealed? A. I cannot say that I did.

Q. Had you any instructions from anybody to conceal it? A. No, sir; I had no positive instructions.

Q. When this paper was made out, was the amount \$30,000 entered in there? A. It was, sir.

Q. The footing was not made up? A. No, sir.

Q. The item, 'received from premiums, \$54,433.51,' has that been altered? A. It has not been altered.

Q. What time was it that Mr. Winston spoke to you about this? A. What time of day, do you mean?

Q. Yes? A. That would be very difficult for me to answer; the meetings of the finance committee are usually held at ten o'clock; they might not have been held at that time then.

Q. I understand you to say that the committee were in session at the time? A. They were about sitting.

Q. This memorandum they wanted for immediate use? A. Yes.

Q. Now, try and recollect, if you can, what the exact words were that Mr. Winston made use of when he told you that this item was not right; as near as you can remember? A. I don't know that I can attempt to repeat his words.

Q. You are quite positive, though, that it was only an expression of an opinion that it was incorrect; and not a direction to include it in any other item? A. That is my recollection, sir.

Q. I see here items, 'received for interest,' 'account bonds and mortgages,' etc.; is it not the way you made this out, to put opposite the specific items the amounts that came properly under them; and then the whole balance of receipts, from every other source, is included in the item 'received from premiums?' A. Undoubtedly, sir.

Q. That was the way? A. That was the way.

Q. That was done in that case? A. Yes.

Q. Then the only reason why this \$30,000 appears on this statement as 'received from premiums,' was because you were told that the statement was not correct as it was, and it was your custom to put in as 'received from premiums' all amounts that did not come under some specific heading in that statement? A. That is what I have said; in the absence of any instructions.

By Mr. McCULLOH :

Q. You say it was your custom to include as 'premiums' everything that you didn't know where to put to anything else? A. It would naturally come under that.

Q. Would United States stocks naturally come under 'premiums'? A. No, sir.

By the SUPERINTENDENT :

Q. '1135, Amos Otis, \$3,100,' what does that item mean? A. That is an item of receipt on account of bond and mortgage.

Q. Is this all in your writing? A. Yes, sir.

Q. What was the actual amount received for premiums? A. Precisely as it is there, less \$30,000, and the interest that was credited with that \$30,000.

Q. Did you make that memorandum in the order in which it is at present, commencing at the top and writing down? A. With the exception of the premium, I did; that was obtained after all the rest was ascertained; the balance is struck, and then the premiums are shown; I will explain it to you, if you wish; we first ascertain the amounts received from all sources for the week, excepting premiums; then taking the payments during the week, deducting them from that amount, they have the actual cash balance, excepting the premium item; take that balance from the true balance that is on the cashier's memorandums, and the difference would be the amount of premiums received during the week.

Q. Then you put that in last? A. Last, as premium.

Q. Had you not completed this in the form in which you first had it before Mr. Winston saw it? A. No, sir.

Q. It was while you were making it? A. Yes, while I was making it.

Q. Before you had put that in—'\$54,433.51'? A. Yes.

By Mr. SEWELL :

Q. That is a mere memorandum for the committee in weekly sessions; they are not on the records of the company? A. Not at all; they are mere memorandums from the books.

By Mr. McCULLOH :

Q. They are prepared for the guidance of the finance committee, I believe, are they not? A. I don't know what use they make of them.

Q. They are prepared for that committee? A. I believe they are." That is the whole of that examination.

Witness—On page 88 you will find a question where it was attempted to examine Mr. Brown on this subject, and it was objected to, and the superintendent makes this remark:

"I don't think that that changes the responsibility; I think Mr. Winston is responsible for that statement."

And the Boston policy holders, whose report you quoted here, make the remark that there was a technical irregularity on the part of the president in canceling and returning the bonds without the sanction of the finance committee.

Q. That transaction is entered on the cash-books of the company exactly as it happened, is it not? A. Yes, sir.

Q. The money is charged as paid to S. L. Husted, and it is credited as returned by S. L. Husted? A. Yes, sir.

Q. The finance committee had access to the cash-books of the company at all times, didn't they? A. I don't suppose they looked at them once in a year.

Q. I don't ask you that; I ask you if the finance committee did not have access to the cash-books of the company at all times? A. I have no doubt they have; but I say that if they performed all their duties in the manner in which they do some others, it makes but but little difference whether they have access to the books or not.

Q. You said in your evidence, that Mr. Miller, the Superintendent of Insurance, was paid \$2,500 for his services in this examination, did you not? A. Yes, sir.

Q. You said that you knew, too, that there was never any attempt to conceal that fact, and that it was a payment made in the ordinary course of business? A. I do not; I know it was testified to before the investigating committee of the Assembly; I had never any doubt but that he was paid for his report.

Q. Did you ever hear that there was any concealment of any amount having been paid to him? A. Yes, I have heard such statements; I will say that before that examination was finished, I was told by a gentleman who knew Mr. Miller to look out; the thing was fixed.

Q. You think it was fixed for \$2,500? A. I do not; I think more was paid.

Q. Do you know of anything more being paid; I would like to know the exact amount if you know; do you know of any others? A. That and the \$3,500 also testified to.

Q. That was sometime afterward? A. It was the following year.

Q. That was in respect to some legislation? A. Yes, sir; I don't remember now whether the \$500 paid to Briggs for going to Elmira was outside of it or not; Mr. Briggs went up with your interrogatories.

Q. To examine Mr. Robinson? A. Yes, sir.

Q. Do you know of any other money paid for this report? A. At that time?

Q. Yes. A. I don't know of any; no, sir.

Q. Have you any reason to believe that there was any paid? A. I think Mr. Miller's expenses were all paid; I don't know anything about it.

Q. You have nothing but surmises? A. That is all.

Q. It has been said here that you had made these same charges that Mr. English is arrested for having made, and that you have made them publicly in the newspapers.

Mr. DARLINGTON:

Some of them.

Q. I asked you the other day whether you had ever made the same charges which I then specified; did you ever charge that Mr. Winston had paid money to Tom Fields and other members of the committee which employed you to examine the books of the committee, in order to prevent them reporting adversely to the company, and did you ever charge that publicly or privately? A. No, sir; I never made any such charge; I never made any charge that I have not information of myself.

Q. I want to get these facts before the committee, that there are other charges? A. Mr. Winston was the first one who told me what Tom Fields' character was, and he cautioned me that the objects and intentions of Fields and others were to abuse the opportunity to injure the company.

Q. These *post-mortem* dividends that were withheld by the company, that you have spoken of, you do not charge or mean to insinuate that they were held for the purpose of private gain by any of the officers, do you? A. I believe—and I found that belief upon the evidence and testimony obtained—that the *post-mortem* dividends were withheld by the order of the president, by reason of some question with regard to the distribution of dividends.

Q. Some actuarial question? A. Some actuarial question, in which the president made the order.

Q. You do not charge, or intend the committee to believe, that they were withheld by him corruptly? A. I don't think it was intended to be corrupt; I considered the offense in that matter was a violation of the express directions of the charter.

Q. You considered it a mistake rather than a crime? A. It was in my views an offense, by reason of the fact that the president was not bound by law.

Q. Didn't you know that the president was advised by counsel that the charter allowed it? A. I think, in fact, that he was not so advised until afterward.

Q. You think he was afterward? A. Yes; it gave rise to a controversy.

Q. There was a sharp controversy in the company among the lawyers and actuaries? A. Yes, in which both sides got opinions.

Q. In which both sides did get legal opinions? A. Yes, sir; there was a hardship in the matter upon those who were entitled to receive those *post-mortem* dividends, and they ought to have been paid to them, and then the question raised as to the future policy of the company.

Q. Prior to the election of 1870, and after the examination by Mr. Miller, and by the Boston policy holders—while the examination by Mr. Miller was being conducted, partly by Mr. Miller and partly by yourself, in the offices of the company, the reporters of the daily press were present, were they not? A. I never saw any of them there; my impression was that there was none of them there.

Q. The matter was published in the newspapers, was it not? A. I don't think it was; I am not aware of the fact.

Q. Did not the insurance papers contain the facts? A. Yes; but I don't think there is one man in a thousand, in New York, ever saw these insurance papers.

Q. What are they for? A. Their principal object seems to be to devote themselves to the insurance interest and make their own living by advertisements, or taking a part in the discussions with regard to matters concerning life insurance; and I believe their chief patronage is amongst the officers and agents and others directly interested in life insurance as a business.

Q. Among the policy holders and others this report of Mr. Miller's had been very widely circulated, I think you said? A. I think you

distributed, at the meeting in Broad street, some seven or eight hundred of these.

Q. The report, but not the testimony? A. None of the testimony; nobody was ever able to get that, amongst the policy holders.

Q. Was that so to your knowledge? A. I tried it by sending policy holders after it.

Q. You mean that the persons you sent did not get it; you do not mean to say that others did not? A. I applied myself, for one, and was refused by Mr. Winston; I sent Mr. Pennyman there and he was refused by Mr. McCurdy; I sent Mr. Mayer and he was refused, and Mr. Newman, and he was refused; and I asked one of the trustees to get me a couple of copies, one for Mr. Guion and one for—

Q. What trustee was that? A. Mr. Popham; I subsequently asked another gentleman if he could not get me one, and he said no.

Q. You think there were 800 of these reports distributed? A. There was a large pile of them.

Q. I think you testified before that they were very thoroughly distributed? A. I ascertained that they were by intercourse with persons in Chicago, St. Louis, Baltimore, Philadelphia and Boston.

Q. Was not the report of the Boston policy holders also distributed very widely? A. Yes, and by the company.

Q. And those two reports were distributed very widely prior to the election of 1870, were they not? A. Yes, sir.

Q. At that election of 1870, was or was not Frederick S. Winston re-elected trustee? A. Yes, sir; it would have been impossible to prevent it.

Q. Let me ask you a question; if all the policy holders, or half the policy holders, whose proxies he had, should have revoked their proxies to Frederick S. Winston, and given them to you, would it not then have been possible to prevent his election? A. Yes, sir; that would have been possible, but it is such an extraordinary supposition that it is beyond human probability.

Q. Then it depended entirely upon the action of the policy holders in this company, in keeping their proxies where they were, that he was elected; give us a square answer to a square question now; you say it is impossible to prevent his election, now isn't it possible if the policy holders want it? A. Yes; now, if I can make my own explanation, I will do it.

Q. Do as you please about that? A. It is utterly impossible for any person in the city of New York, who is aware of what is going

on in that company, to reach the policy holders with the same facility, and to bring the same influence to bear upon them that the agents of the company can do ; and, therefore, they can forestall any attempt on the part of the policy holders here to get those proxies ; they could beat us ten to one ; and they can do more than any policy holder ever can do ; they can have them examined the day previous, or at any time previous to the election, and all ascertained to be correct, and tie them up, as was done in 1870, tied in bundles of four or five hundred, and vote them all at once.

Q. Have you ever tried to do that, and been refused ? A. No, sir ; I never did.

Q. You never had 400 proxies to vote ? A. No, sir ; I never had one in my life ; I never asked for one, and refused to take them ; but to attempt to beat them by getting proxies is simply absurd.

Q. You urged upon the policy holders the withdrawal of the proxies, did you not ? A. Yes, sir.

Q. Do you think that is an absurd thing for you to ask them to do ? A. No, sir.

Q. What do you mean by saying that an attempt to defeat them by proxies was absurd ? A. I say the hope to obtain a sufficient number to defeat them would be absurd in the present condition of affairs.

Q. When you presented these letters to the Herald, and had them published, it was not with any expectations that the policy holders would obey your suggestions, and withdraw their proxies ? A. I presented them, in the hope that such a statement would arouse some or more of them, and that in time public opinion would force things there to be corrected.

Q. You have undertaken the job, haven't you, of getting Mr. Winston and Mr. McCurdy out of this company ? A. I have not.

Q. Haven't you often stated that it was your intention to work at it continually until you got them both out ? A. No, sir ; I have stated that it was my purpose, as long as I had an interest there, to defend it and protect it, as far as I could ; and also I have stated that knowing those two as I do, and with my opinion about them, I never should willingly consent to allow them to remain, or ever forego efforts to get them out.

Q. When the Mutual Life Insurance Company proposed to lower its rates, this fall, there was great excitement in the insurance world, was there not ? A. There was.

Q. You took part in the discussion, did you? A. I did.

Q. You were opposed to the project of the Mutual Life Insurance Company, to furnish cheap insurance to the community? A. No, sir; I was opposed to then putting people there at a lower rate than I had been put there myself.

Q. You were not in favor of the reduction of the rate, because they did not reduce the rate that you were paying? A. I was opposed to the whole movement, as I believed conscientiously that the whole meaning of it was an attack upon the other companies, and not for the benefit of the policy holders.

Q. What did you do to prevent it? A. I did all I could to obtain signatures against it.

Q. Did you employ counsel to see whether you could not stop it? A. I employed counsel to see whether we could not stop it.

Q. Who did you employ? A. My own counsel have always been Martin & Smith.

Q. You employed other counsel in this case, did you not? A. I also, together with others, employed Mr. Thomson.

Q. Foster & Thomson? A. Yes, sir.

Q. What others were with you, who employed them? A. There were a great many others who had employed them; they first carried me to them.

Q. Were the managers of some of the other companies connected with you in that matter? A. No, sir; I have not been connected with any company; my first connection with Mr. Thomson was through one of the policy holders, Mr. King.

Q. Did you pay Mr. Thomson anything? A. I have not, yet; I expect to pay him; I usually honor a lawyer's bill; I have no doubt Mr. Thomson will tell you where he gets his fees, if you want it, although he would probably avail himself of this privilege, and not answer the question.

Q. The Baltimore Underwriter, that you speak of, published all these charges at the time you made them, and at the time of the investigation? A. I don't think they did.

Q. Before? A. They published the matter of the restoration of Winston's policies previously.

Q. That was very thoroughly published all over the United States? A. I don't know how far it was published; I don't think it was as thoroughly published as it was whitewashed.

Q. I call your attention now to some of the policies that you com-

plain were restored, or too much money was paid for them ; Mr. Houston, you claim, had too much money paid ; do you know whether Mr. Winston authorized that ? A. I believe he did not ; the evidence shows he had nothing to do with it.

Q. Will you explain to this committee what you stated here, in this examination, when the question asked you was what you knew about Mr. Winston having anything to do with the illegal practices ?

A. I answered the question upon the direct question of the counsel whether I knew anything about a policy of J. B. Houston.

Q. Now, you say that Mr. Winston had nothing to do with that policy ? A. Not to my knowledge.

Mr. SEWELL :

I move that all the testimony given by Mr. McCulloh on this subject be stricken from the minutes.

Mr. DARLINGTON :

It will be time enough when we get through our testimony ; I may connect it with other testimony.

Mr. SEWELL :

I make the motion now ; the stenographer may take it, and the committee may rule upon it at any time they please.

Mr. DARLINGTON :

If I don't connect it I shall have no objection.

The CHAIRMAN :

We will reserve that until the testimony is in.

Q. Also John H. Bewley's policy was spoken of ; do you know whether Mr. Winston had anything to do with the payment of that policy ? A. It was by his direct order.

Q. He had been a book-keeper of the company ? A. Yes, sir.

Q. For how many years ? A. I don't know ; he was forced to quit by reason of his antagonism to Mr. Winston.

Q. And yet Mr. Winston paid him more than his policy was worth ? A. Yes, sir ; it was a good way to shut his mouth.

Q. But it didn't shut it, did it ? A. No, sir ; I don't think it ever will ; I think he would have considered it rather a good joke that the company bit so quickly ; he is a man that is honest, and one that won't lie.

By Judge PORTER :

Q. You think that he took this money honestly, do you? A. His own testimony said he didn't see why he shouldn't take all he could get, if they thought it was right to give it.

Q. Is that the ground upon which you think he was an honest man? A. No, sir; they take the ground that they had the right to pay that amount; although they testified that other policy holders could not have got it.

By Mr. BLESSING :

Q. Did they pay that money as a bribe? A. The policy was worth a little over \$400; and Mr. Bewley made the proposition to sell the policy, and asked what they would give for it, and they gave \$600.

By Mr. SEWELL :

Q. Do you know how much he paid in premiums on that policy? A. No, sir.

Q. It was more than \$600, was it not? A. I don't think it was; it was more than any other policy holders could obtain; and it was done without the authority that the by-laws required; the insurance committee didn't so consent, and knew nothing about it; and the money was paid to him direct, and he surrendered it.

Q. What was the amount paid him? A. Six hundred dollars; this is in his own statement; you had better get him, and he will tell you all about it.

By Mr. BLESSING :

Q. What was the amount of the policy due? A. About \$450 is what he is entitled to.

Q. They gave him more than was due? A. Yes, sir.

By Mr. ATWOOD :

Q. Did you state how long it had to run? A. No, sir.

By Mr. SEWELL :

Q. Did not Sheppard testify in respect to the Bewley policy in this wise :

"The true value on the books of the company was \$696.29; about that \$600 I recollect now distinctly; the rule of the company is to give one-half the reserve and all the dividends; this of \$600

was allowed in consequence of a consultation between Mr. Winston and myself; the \$600 was within the amount held by the company, and \$600 was agreed upon by Mr. Winston and myself?" A. Just above it you will see there—

Q. Answer this question first? A. I believe this book to be correct.

Q. Now call my attention to it? A. You will see by turning to the record of Mr. Bewley's policy; I have it.

Q. Whose testimony is that? A. Mr. Lawton's; he is the assistant actuary; "the value of the policy, as made out, was \$452.54; the value paid was \$600; my memorandum states \$600, allowed by Mr. Homans; the policy itself is here, bearing Mr. Homans' indorsement for that amount."

Q. For that amount? A. Yes, sir.

Q. Mr. Homans was then the chief actuary of the company, was he not? A. Yes, sir; he is here to give you all the facts himself; if you will turn to Mr. Bewley's testimony, he states the circumstances for which he offered to sell it.

Q. Well, that is all I want; Mr. Isaac Green Pierson and Mr. Smith Brown were members of the trustees, who somewhat sympathized with you in your complaint? A. I never spoke to Mr. Pierson in my life.

Q. You have spoken to Mr. Smith Brown? A. Yes, sir.

Q. But don't you know, as matter of fact, that Mr. Smith Brown has become convinced that those charges have no ground? A. I do not; I have communications about that, that his son has been made counsel to the company; and since that he has withdrawn his opposition,

Q. Where does the son reside? A. I believe he resides with his father.

Q. What is his name? A. I cannot tell you; I understand he is in Mr. Henry E. Davies' office.

Q. Who told you so? A. I cannot recollect at the moment; I will try and think who it was that told me; I really cannot remember now who it was; I will tell you who told me more distinctly than any one else in regard to his withdrawal; and I will tell you who made the remark to me, presently, about his son; I will probably be able to recollect the person; one of the gentlemen who made your last examination told me that papers had been submitted to them, in which Mr. Brown had endeavored to retract what he had testified to here.

Q. Mr. Smith Brown? A. Yes, sir.

Q. That left you, then, without any support in the board? A. I never had any support in the board.

Q. I thought you said that Mr. Brown supported you? A. No, sir; I said Mr. Brown was opposed to certain acts of Mr. Winston; I regarded Mr. Brown as one of the fairest men that I had ever seen, and that while he opposed Mr. Winston's conduct in a great many respects, he nevertheless supported him in everything he deemed right.

Q. Do you think it is a fair thing for a gentleman to withdraw his opposition because his son is made counsel? A. I do not.

Q. You still think that Mr. Brown's course is fair? A. I think Mr. Brown has been brought under influences, as a good many others, by the officers of that company.

Q. I understand you testified that you did not know about the comparative results of the company—other mutual life companies with the Mutual Life, with regard to dividends? A. No, sir.

Q. Have you any testimony to give to-day, as to whether you compared the dividends in the Charter Oak with the Mutual Life? A. I have never made any such comparison.

Q. You have no idea of the comparison between them? A. No, sir.

Q. Or the ratio of expenses? A. No, sir.

Q. Your attention has been given, for a series of years, to the discovery of irregularities in the management of that company, since 1869? A. That is where my business was—to look for them, as an interested party.

Q. You have given yourself to that study pretty thoroughly? A. Everything concerning my own interest in it, I have.

Q. Everything concerns your own interest that relates to the company, does not it? A. Yes, sir, in that company.

Q. It concerns your own interest to know whether the funds of the company are invested with care, and free from loss? A. Yes, sir.

Q. Then you have necessarily an interest where any part of the \$55,000,000 of the company was invested badly? A. I never had an opportunity to investigate that.

Q. Did you ever hear that they had lost a dollar by investment, either in bonds or stocks? A. I think at the time of this examination there was a loss of \$5,000, and Mr. McCurdy assumed the responsibility of it; it was one of Mr. Pierson's charges.

Q. That the company lost \$5,000 by that investment? A. Yes, sir; Mr. McCurdy assumed the responsibility of it, I think; but I have not investigated that matter; I think the company, as far as their investments are concerned, are careful.

Q. Did you ever know a company that used the same care in its investments, and everything relating to its investments, as the Mutual Life Insurance Company? A. I have no source by which I can make a comparison.

Mr. DARLINGTON:

You will find that in the ninth charge of Mr. Pierson.

WITNESS—It ain't worth while to go back to that.

By Mr. SEWELL:

Q. You went, prior to the election of 1870, to Boston; you went to Baltimore to address a meeting of the policy holders there, and urge them to action in the matter? A. Yes, sir; at the request of Judge Davies, I intervened and stopped a vote of censure.

Q. You did? A. Yes.

Q. You refrained from putting a resolution of censure? A. No, sir; I got some gentlemen who were apparently trying to put a vote of censure, to desist; I interfered and stopped it, at the request of Judge Davies.

Q. You are aware that corporations are in the habit of having agents at Albany during the winter, to look out for legislation? A. Some corporations; yes, sir.

Q. Do you know, with the life insurance companies, especially for the last four or five years, that it is a common thing for them to have an agent there to watch the course of legislation? A. Only by general repute I know it; not from my own knowledge.

Q. Don't you think that it is necessary that there should be somebody there to see what bills are introduced, and how it would affect? A. I think that every life insurance company in the State of New York can get all the information that they need, and get all the proper legislation that they need, and can defeat any improper legislation, without the use of means which I believe to be now generally employed by life insurance companies.

Q. You say the use of *means*? A. Yes, sir.

Q. What facts have you upon which you base your belief that means are used by the life insurance companies to prevent legislation?

A. Upon the fact that persons are employed who are politicians, known to be in and around the Legislature, and holding a particular relation to lobbyists, or to the parties controlling its action.

Q. Don't you concede that it is necessary that somebody outside the Legislature should represent corporations, life insurance corporations, so as to report promptly to the companies what bills are introduced affecting their interests? A. I think that can all be obtained at a very small expense.

Q. I don't ask you that; don't you think somebody ought to attend to that business? A. Yes, sir.

Q. Do you, in the course of your business, know anybody who is willing to attend to that business for nothing? A. I never have any trouble in getting any bills I want; I get nearly all the bills that are introduced; I never have any trouble.

Q. Did you never pay anything? A. Never a dollar in my life; I think, though, I paid one of the clerks to copy and send me a bill that was not printed; when they are printed I can get them without difficulty; I don't think there is a life insurance company in New York which has not some friend in the insurance committee, who would keep them posted.

By Mr. BLESSING :

Q. Do you think they have more than one? A. It is very natural; and that they should be very careful to examine into the committees, to see who is there, and find out the pedigree of each one; I think that whole system at Albany invites attack upon them constantly; if they were to spend some few thousand dollars in fighting legislation after it has passed, and not try to stop it, it would be better.

By Mr. DARLINGTON :

Q. You said that you wished to collate Mr. Miller's report with the evidence; will you be kind enough to take that report and state— A. I cannot do it now; it will take too much time; I will prepare a collation and give it to Mr. Sewell, if they want it; I will collate the facts.

Mr. DARLINGTON :

Is there any objection to that; of the two reports?

Mr. SEWELL :

Very well; give a copy to me.

Mr. DARLINGTON :

We will submit them to the committee.

By Mr. ABBOTT :

Q. In regard to these proxies, what, in your opinion, was the object of requiring policy holders to indorse their tickets in voting for officers? **A.** What is my opinion?

Q. Yes? **A.** I had but one opinion about it; I considered the statement that it was done in order to examine the ballots afterwards was a pretext; and that the real object was to know who voted for and who against the officers of the company.

Q. That is, who was friendly? **A.** Yes, sir; I think it was intended to deter some "weak sisters," and it did do it; I had no doubt myself that that was its real intent.

Q. When you were employed to examine the accounts, what progress had you made when you were refused admittance? **A.** I was examining at the time the account of Mr. Winston's son-in-law, Mr. Merrill, about which there had been a great many statements; I was engaged in examining that, in the books of the company, at the time.

By Mr. Atwood :

Q. How far through the books had you got? **A.** I would state that in coming in there—in such a corporation as that—without any one to guide you, it took me some time, first to get the hang of the books, to find out where to get things; as a matter of course there was nobody there that was going to volunteer me any information.

By Mr. ABBOTT :

Q. You did not progress very far? **A.** I had gone a short distance in it; there are matters in connection with the company which I had intended to investigate thoroughly—their advertising, their legal expenses, law contingent expenses, and other matters, I had intended to go into thoroughly, and ascertain whether these expenses were economical and correct, or exorbitant.

Q. You hadn't made any considerable progress? **A.** No, sir; the door was shut before I got half through.

Q. Had you reason to believe that other developments of an important character might be made? **A.** I have no doubt of it; I have no doubt that by critical examination of that company by experts, that they will find that the funds of that company, which are trust funds, haven't been handled with the care and economy that they

ought to have been, as far as expenses are concerned, and particularly as regards the expenditure of money in ways which the policy holders might properly take exception to.

Q. You think a further investigation would produce further proof?

A. Yes, I have no doubt in my own mind that as far as the investments of the company are concerned, that they are fully protected by security; I have no doubt in my own mind that the company is abundantly solvent; I have no doubt in my own mind that upon a proper examination, that matters will be discovered which ought not to have been done; in the limited examination that I did make; I did discover things that I think were reprehensible; that was simply my opinion; others have differed with me.

By Mr. BLESSING :

Q. What was the matter, that you didn't go on with your investigation? A. The Legislature adjourned; and I had no power; and I was perfectly satisfied at that time that it was useless for me to attempt to obtain any assistance from Mr. Miller.

Q. As a policy holder, haven't you a right to examine the books?

A. No, sir; the books are required to be open for thirty days prior to an election; such books as are required to be open in other moneyed corporations.

Q. Why didn't you avail yourself of that opportunity? A. If you can get through it in six years, and start ignorantly at it without knowing where to get out—

Q. You could not do it in thirty days? A. No, sir, not in ninety days; that is, in the time I had to get at it; I had other business at the same time; if you give me plenty of time, and the power to enforce attendance, and get answers, I can do it.

By Mr. ABBOTT :

Q. What I understand was, *that was a partial examination*, not extensive? A. It could not be extensive, as a matter of course; upon charges which I had made, and which I had reason to believe, I want to be understood distinctly—about that matter—as not wishing to do anything to damage that corporation; I believe the corporation to be perfectly solvent, and I believe its investments to be well made, but I believe, upon a fuller investigation of its affairs, that the expenditures of the company will be found to be unjustified in more instances than one; and that other things of irregularity will be discovered.

Q. Which would sustain these charges? A. These charges sustain themselves, on the evidence given before.

Mr. SEWELL :

Do you expect to find any other evidence to sustain these charges?

Mr. DARLINGTON :

That is, of the charges of malappropriation?

Mr. SEWELL :

The question is with me; the charges which he made, and which were examined by Mr. Miller?

Mr. ABBOTT :

The charges which were given to this committee to investigate; charges made by Mr. English?

WITNESS—I want to be understood distinctly as not being a party to Mr. English's charges.

Mr. DARLINGTON :

The question is whether you think further testimony cannot be adduced to sustain the charges contained in Mr. English's petition to the Legislature, upon a further examination; we can hand you the resolution, if you don't know without.

WITNESS—Why do you go into that? It is nothing but an opinion, any way.

Mr. SEWELL :

You have no right to give that opinion; and I ask you why you did give it afterwards?

Mr. ABBOTT :

The committee are in search of light on the subject, and want to know whether it is necessary to make a further examination.

Mr. SEWELL :

Look at *that*, and say whether you mean to state that the books of the company will throw further light on those charges; light we haven't already seen?

Mr. ATWOOD :

I believe that appears already; that by a further and more extended examination than he made, those things would appear.

WITNESS—I have no doubt, upon a further investigation, that some evidence will be obtained that will be of use in those charges.

Mr. SEWELL:

I have no doubt of it either; but don't you think that the evidence which will be obtained will be of use to others than Mr. English?

WITNESS—I think it would be useful to both sides, and to the policy holders.

By Mr. BLESSING:

Q. Do you know of Mr. Miller receiving any money illegally for the examination of the books of the Mutual Life Insurance Company? A. I know that he received \$2,500 for making this examination; now, whether that was an illegal claim or not, was the question that you gentlemen had to decide at Albany, last winter.

By Mr. ATWOOD:

Q. You don't know what the regular fees would have been; what his proper and legal fees would have been, of your own knowledge? A. I only know that if I had been in Mr. Miller's official position that the company could not have paid me anything for it; I did not consider it was a proper thing for him to have done under the circumstances; I should have felt myself—although it is not a very likely thing that they would have done it—that I should have done very wrong to have accepted any pay for any work I did there; I think Mr. Miller was in his official position; and if he made any examination he was bound to do it without charge, or for a very small charge.

By Mr. SEWELL:

Q. Don't you know that it has been the universal practice of the Insurance Department, from its first institution, for the Superintendent to make a charge? A. Yes, sir; as I gather from the testimony, from one hundred to one hundred and fifty dollars used to be the regular rates.

Q. For fire insurance? A. I don't know of any life insurance companies having been examined.

Q. The fire companies had \$200,000 to \$300,000 of assets to examine? A. I don't know anything about that; this examination of Mr. Winston had nothing to do with the assets of the company.

Q. Wasn't it done afterwards? A. I have my own impressions that it was done.

Q. We don't want your impressions, unless they are based on evidence? A. I will take that book itself.

Q. I think it is due to this committee and Mr. Winston and to me, although you may feel very inimical to Mr. Winston, that you should state broadly and squarely whether you mean that this payment of \$2,500 to Mr. Miller for his services in making this examination was paid by the company, and received by Mr. Miller, with the intent of its being a surreptitious payment; or whether it was paid openly and above board as the fee for the examination; I want that to appear before the committee? A. I only know that from the evidence.

Q. You know there was no attempted concealment of the amount? A. The evidence is that Mr. Winston paid Mr. Miller the \$2,500, and volunteered to pay him more if he would take it, and that it was properly charged upon the books of the company as a payment to Mr. Miller.

Q. For what? A. For the examination which he made in the company, brought about by charges.

Mr. SEWELL:

That is all I want to get before the committee; the way it has been before them before, would seem as though it was a surreptitious thing.

WITNESS—I never said that.

Mr. SEWELL:

You conveyed that impression.

By Mr. DARLINGTON:

Q. Was it known before the investigation that it had been paid? A. No, sir; it was not known to the policy holders; there is no question that anybody who renders a service to that company will get payment for it; it was natural the company should pay liberally for that.

By Mr. ABBOTT:

Q. Was the action of the legislative committee, at that time, commented on as being influenced improperly by the company? A. When? Do you mean at the time of this examination; it was public

rumor here that the committee was rotten; and when the offer was made to me to act for them in the examination, I was cautious about it—about receiving the appointment—till I saw Mr. Brown, who was then in Albany, and was urged by him to take it, on the ground that if I didn't take it they would send somebody there who would go to work and give them trouble, and was advised by him to go and accept it, and I did it with the understanding and purpose to get at the truth and the facts, and protect the company from any improper action of Tom Fields; I refused ever afterwards to make an improper report.

Q. You say that it was reported that the committee "was rotten;" what do you mean by that? A. I mean that Tom Fields was at the head of it, and the whole thing could be bought; it could be handled by money; I don't think it was much out of the way.

By Mr. SEWELL:

Q. Did you ever see it charged, in print, that Mr. Winston had bought up that committee, or had used money to purchase any favorable action by the committee? A. I don't remember anything of the kind; I think it was most unmistakably, at the time, understood that the committee was in favor of the Mutual Life, and that if they were in any way influenced, it was by the company.

By Mr. BLESSING:

Q. If Mr. Sewell or Mr. Pierce were examined, could they say how much Miller received for making that report, do you think?

Mr. SEWELL:

You know they were examined on the Miller investigation, don't you?

WITNESS—Yes, sir.

Mr. SEWELL:

You know we were both examined, and we swore—

By Mr. BLESSING:

Q. (Interrupting.) If Mr. Sewell or Mr. Pierce were examined, do you think they could tell? A. I can't tell; they were examined by the legislative committee previously.

Q. And on the Miller investigation? A. Yes, sir; I know there is such an examination bearing upon their connection with the Mutual Life.

SHEPPARD HOMANS called; sworn, examined.

By Mr. ATWOOD:

Q. Where do you reside? A. My home is in Englewood, New Jersey.

Q. Your business? A. My business is that of consulting actuary.

Q. Your age? A. My age is 42.

Q. Do you know Mr Winston? A. I do.

Q. Were you formerly connected with the Mutual Life Insurance Company of this city? A. I was for fifteen years the actuary, and for a little over a year afterward the consulting actuary.

Q. When did your relations terminate with this company? A. My relations with the company, as actuary, terminated on the 1st of February, 1871; as consulting actuary in the year 1872.

Q. For what reason? A. My connection as actuary with the company was terminated, because of the want of harmony between the officers of the company and myself in regard to the performance of my duties.

Q. Were you in accord, or was it in want of accord with Mr. Winston? A. I was in decided want of accord in some respects.

Q. State what? A. It was made a part of my duties, as actuary of the company, to audit the receipts and payments of money.

Q. Was that a part of your legitimate duty as actuary? A. Yes, sir; and I have on several occasions found reason to object to the accounts as rendered, and have objected to them; more particularly the account for the portion of the year 1869; and by reason of my refusal to audit that account, my relations were so unpleasant that I gave up my position there.

Q. Were you ordered by the officers, and if so, which one, to audit the accounts that you refer to? A. There was an account during the year 1869—

Q. Wait a moment; you were ordered to audit certain accounts? A. I was ordered to do so.

Q. What account was that? A. It was, I think, the quarterly statement.

Q. For November? A. It was the two quarterly statements for the six months ending the 1st of November, 1869; I had taken exceptions to some of the items; I thought they were wrong, and had explained my objections to the president; and was satisfied that they were wrong, and had modified my usual form of audit; my usual form of audit was to say that "I have carefully examined

the items contained in the foregoing account, and find the same correct;" not wishing to criticise too severely the action of the senior officers of the company, I modified the form of audit by saying that "I have carefully examined the items contained in the foregoing account, and certify they are in accordance with the entries on the books of the company;" thinking that that would call the attention of the trustees to the fact that there were irregularities, if they wished to examine them, and at the same time would avoid the necessity of criticising the action of the older officers of the company.

Q. Do you mean, by the older officers, Mr. Winston? A. I mean the president and vice-president; Mr. Winston objected to my modified form of audit; I told him it expresses the exact facts of the case, and he said it should never be submitted in that form; and I told him I would be very glad to modify it in any way consistent with my duty, but the account was incorrect, and could not be pronounced correct by any competent and honest auditor; and, therefore, I had done what I supposed was my exact duty in the matter, but would be happy to modify it in any way consistent with my duty; he became rather violent, and insisted on my auditing the account; and when I declined to do so in the usual form, he said he would get some one else to do it for him; and intended to get the assistant actuary to audit it, but he was not in the office at the time; was absent; and he came back to my room and ordered me to audit the account which I had previously told him I thought was incorrect; and when I declined to audit it fully, which I could not do as an honest man and understanding my business, he erased the audit that I had given, and said that it should not be presented in that form; and then, thinking it was time to assert my manhood, if ever, I declined to have anything further to do with it; the account was sent in to the trustees unaudited, and ordered to be laid upon the table; subsequently, I understand—

Mr. SEWELL:

Q. Just speak as to your knowledge? A. Subsequently, then, to my knowledge, after a meeting of the finance committee, who had no authority in the matter, three of the trustees, being present, authorized Mr. Winston, at his request, to allow the account to be audited by the assistant actuary, who did so.

Q. State who that assistant actuary was? A. L. C. Lawton, the present assistant actuary.

Q. You say he is the present assistant actuary? A. Yes, sir.

Q. In this account referred to by you, what were the items which you refused to audit? A. There were several items; one was an item of \$2,250, which was stated as having been paid as office rent to an agent, when it was ascertained it was used to defeat the proxy bill at Albany; another item was \$400 that was paid to an agent—former agent—of the company, as his proportion of the bonuses to be awarded at the end of the year; now, the rules of the company provide that all extra payments should be authorized by the finance committee; this was an unusual payment, and although perhaps perfectly proper, it was in violation of the rules of the company; another item in the account, or rather consisting of a great many items, was in consequence of an order by the president of the company to withhold the payment of *post-mortem* dividends in the future: each one of those would have prevented a full approval of the account by the auditor; in consequence of my refusing to audit that account, or my having audited it in an altered form, my relations with the company were rendered so unpleasant that I preferred to withdraw.

Q. Was there any threats made to you by Mr. Winston, or any one, in regard to your withdrawing from the company; if you did not withdraw that he would turn you out, or words to that effect, in substance; what did Mr. Winston say to you about withdrawing? A. The only threat was, that if I did not audit that account, somebody else would.

Q. You inferred that you would be turned out, and somebody else put in? A. No; I could not make that inference.

Q. What did you understand by that phrase; that the assistant actuary would audit it, or Mr. Winston would audit it? A. Yes, sir; that the assistant actuary would audit it.

Q. You were acquainted with quite a number of the trustees, were you not? A. Yes; I knew them all, probably; I think I knew them all.

Q. Were you informed by any of the trustees that your removal was insisted upon by Mr. Winston, because you would not audit these accounts; or any reason? A. No, sir.

Q. Did any of the trustees ever inform you that your removal was insisted upon by Mr. Winston? A. I have been informed since, that had I not resigned, that the question would have been put to a vote, and there were enough parties there in adherence to Mr. Winston who would vote it.

Mr. SEWELL :

I object to that; it does not appear that he was informed before he resigned; he says he has been informed since, and what he was informed, unless Mr. Winston told him so, could not be evidence, in this case, of any effect it may have had on Mr. Homans' mind.

WITNESS—My informant was the vice-president of the company.

Mr. DARLINGTON :

We have got to get from him the names of the parties.

Mr. SEWELL :

I submit that it is immaterial; if there is any materiality to this question at all, the materiality is limited by the effect that it had on Mr. Homans' mind to cause his resignation; but what he was told yesterday, or the day before, or the day after his resignation, cannot be any evidence to show what the motives were in resigning.

Mr. ATWOOD :

If we show that Mr. Winston ordered these false accounts audited, it shows that the facts alleged in this petition are in part true; that he was privy to the malappropriation of the funds of this company.

Mr. SEWELL :

This question has nothing to do with that.

Mr. ATWOOD :

It may have, in connection with something else.

Mr. DARLINGTON :

We will modify it.

Q. Prior to your resignation, were you informed by any of the trustees that your resignation would be accepted? A. No, sir.

Q. Were you offered or promised any other situation, such as consulting actuary, in case you resigned as immediate actuary? A. I should like to relate that in a proper form, as it may be misconstrued if I answer your question directly.

Q. State in your own form what occurred? A. One item, as I have stated before, in the account which I had declined to audit fully, was the refusal to pay *post-mortem* dividends to the policy holders; now, the *post-mortem* dividends had been determined by a plan approved four or five years previously, and had always been

paid by the company; there was no question about that whatever; and without any reason given, and without my knowledge, the president of the company directed that in future no *post-mortem* dividends should be paid in any case; the agents of the company were officially informed by letters, which may be found on the letter-book of the company, and the *post-mortem* dividends were withheld; five years previously, I think it was, that same question came up and was referred, with power to a committee, consisting of the president, the actuary, the counsel of the company, and Professor Anderson and Professor Wright, as experts; they decided that the *post-mortem* dividends were required by the charter, specifically, and must be paid, and if they were withheld in any case, they could be recovered, with costs and interest, from any court in christendom; I recollect the word particularly, because my attention was called to it particularly; they had been paid for some five years; as I have stated before, without any reason being given, and without my knowledge, the order was given that in future they should not be paid in any case, and that order came to my knowledge first by a letter which I received from the president of the New England Mutual Life Insurance Company, Mr. Benjamin F. Stevens, who stated that his medical examiner had died recently, and his widow had claimed a dividend on the last premium paid, and had asked his advice, and being an expert himself he knew that it was equitably due, and the company had always paid it; he wrote me a friendly letter to know why it was not done, and told me that the company was in danger of a hostile lawsuit if it were withheld; that was my first intimation that they were withheld; I showed the letter to Mr. Winston, and he agreed with me that we had better pay that and settle the question afterward; when the time came for me to audit the account, I had had long talks with Mr. Winston about it, and he had acknowledged that he had given that order, and he thought that they ought not to be paid, and they should not be paid; when I had modified my audit it was referred to the insurance committee, and they decided that the charter was specific, and that there was no getting out of it; those *post-mortem* dividends were legally and equitably due, and they must be paid, and the president was ordered to pay them; they haven't been paid, and are still due in many cases, and the policy holders are wrongfully treated in that respect; moneys equitably and legally belonging to them are still withheld; when the question came up in the insurance committee, the vice-president had a long argument

to try and prove that they ought not to be paid, but the committee decided, when he showed them the decision made five years previously by the counsel, that they must be paid, and so ordered it ; having been shown in the wrong in refusing to have these paid, the question then came up for the first time, that those dividends were not properly calculated ; and then Mr. McCurdy wrote a letter to the counsel of the company, who gave a decision that the dividends were not properly calculated ; that decision was in direct conflict with the decision of the counsel five years previously, when the very point at issue was presented to them as a defect ; they saw it as a defect, and the dividend system was then inaugurated and afterward carried out ; and there was no reason for the change except to shield Mr. Winston from the consequences of his illegal action ; the counsel recommended the change in the dividend system ; it was carried through the board, and they insisted upon a plan of their own, and I, in order to be right on the record, wrote officially that it was wrong, at the same time expressing my willingness to carry out my instructions ; and they insisted on carrying out their plan ; and the surplus was divided in the most absurd way that has ever been done by any company in the world, to my knowledge some \$800,000 was given in excess to persons who were not entitled to it, and of course at the expense of those who were entitled to it ; the error was pointed out, and they were convinced of it, and they found themselves in the position of being obliged to take back what they had illegally divided in excess, or else to get rid of me ; not wishing to injure the company, or to injure the cause of life insurance, I stated to the committee the facts ; and also stated that I was perfectly willing, if it would save any exposure of this terrible mistake that they had made, to withdraw ; on their recommendation the trustees created the position of consulting actuary, to which I was appointed, with the understanding that it was to be a permanent office ; I was warned at the time, that at the first moment they would terminate it, but I supposed it would be a permanent matter ; it was terminated, as I had been warned, without notice to me, and I have no connection with the company at this time.

Q. For how long a period have you not had ? A. The resolution terminating the position, named the date of the 31st of December, 1872, as the time when the position of consulting actuary would be abolished.

Q. How long had you been consulting actuary ? A. Something

less than two years ; but before the 31st of December came around, this attempt of the Mutual Life to decrease the rate of premium was attempted, and I found that in order to take an independent stand in regard to it, it would be well for me to resign my position, which I did on the 6th of December, I think it was.

Q. You were examined in the other investigation, the Miller investigation, were you not ? A. Yes, sir ; I gave testimony there.

Q. What do you know about the restoration of the policy to Mr. Bradford ; Alexander W. Bradford ? A. The facts are correctly stated there ; the policy was surrendered by Mrs. Bradford.

Q. You knew Judge Bradford ? A. Very well.

Q. Well, more particularly at the time of the restoration of this policy by the company, do you know what the condition of Mr. Bradford's health was ; and if so, what ? A. He, was then in a moribund condition ; died a short time afterward.

Q. How long after ? A. Some few weeks ; he was affected with a mortal disease at the time, and was hopelessly ill.

By the CHAIRMAN :

Q. Was there an examination by the physician at the time it was restored ? A. No, sir, not to my knowledge.

By Mr. DARLINGTON :

Q. You said he was in a moribund condition at this time ? A. Yes, and had been for some months.

Q. Was that fact known to the company ? A. Oh, yes, sir ; known to all connected with the company.

Q. It was paid as a death claim in December, 1867 ; that word there should be September ; that is a misprint in the testimony ; on the 24th of September, they restored the policy, and he died in October, and they paid it as a death claim in December.

By Mr. ATWOOD :

Q. That death claim was not paid to Mrs. Bradford, was it ? A. My impression is that it was not, but I could not state positively without reference to the records.

Q. Don't you remember that it was paid to the executors ? A. I think it was paid to the executors.

Q. The executors of Bradford ? A. Yes, sir.

Q. You were with this company in 1865 ? A. Yes, sir.

Q. And did you make an application, or was an application made

on your behalf, for an increase of salary? A. Yes, sir; I spoke to Mr. Winston in regard to salary—Dr. Post and myself spoke to him—and he requested or suggested that we should make an application, which I did; and at his request I obtained the rate of compensation and the method of compensation paid to the officers of some of the other companies; my application was for an increase of salary.

Q. What do you know, in your official capacity there, about charging this dividend account; state the whole matter about that? A. The trustees awarded to the officers what is called a bonus, in addition to their salaries, and the first year it was debited properly to expense account, but the second year it was put in as a dividend to policy holders; to that I made some objection, and consulted with some of the trustees about it, as not being the correct entry for it.

Q. Did you consult with Judge Bradford? A. No; I think not.

Q. You say the first year it was debited to expense account, and the second to dividend account? A. Yes, sir.

Q. What effect would that have upon the ratio of the expense of the company? A. It would make the ratio of expenses smaller, and that of dividends larger than really was the case.

Q. It would conceal the actual expenses of the company? A. It would.

Q. And materially increase or be supposed to increase the benefits of the company, by showing the small ratio of expenses? A. The whole amount was made to appear as a benefit to policy holders instead of a charge to the expense account.

Q. How long did that continue? A. The bonus, do you speak of?

Q. Yes; and this method of charging dividends? A. I think it was continued for two years longer.

Q. Until this Miller investigation? A. No; it was terminated before the Miller investigation.

Q. There was an investigation previous to that, was there not; how did it come to terminate, and what terminated that method of charging? A. Mr. Smith Brown objected to it; he said he had understood it was to be for one year only, and he found that it had been for more than one year; and the question came up and it was terminated.

Q. For a specific reason? A. Merely by vote of the trustees.

Q. Soon after that termination was there not an investigation; the one previous to this Miller investigation? A. I don't know what you refer to, particularly.

Q. You don't know the facts in regard to the investigation by the policy holders in regard to the directors; in regard to keeping those accounts? A. I have no knowledge; I don't know what you refer to; I can't recollect any investigation.

Q. Did you know where the moneys, cash on hand; were deposited at that time you were there? A. As auditor of the company, it was my business to verify the deposits.

Q. Do you know of deposits being made with the Indemnity Company? A. Yes, sir.

Q. To about what amounts? A. My impression is that they would average between three and four hundred thousand dollars.

Q. What were the benefits to the company? A. They received interest; it was on call; they received interest at sometimes four and sometimes five per cent; at that rate.

Q. Do you know whether Mr. Babcock was interested in that company? A. Yes, sir; he is a permanent director.

Q. And was also a trustee of the Mutual Life? A. He is a trustee of the Mutual Life; yes, sir.

Q. And one of the finance committee? A. He has been at different times; I am not sure that he is now.

Q. He had been? A. He had been; yes, sir.

Q. Do you know about the restoration of young Winston's policies? A. I do.

Q. State the facts in regard to them? A. Young Winston had been insured on several occasions by policies which he had, one at a time, sold to the company; for instance, he was insured for \$5,000, and after it had run—

By Mr. DARLINGTON:

Q. Shall I hand you this book to assist your recollection as to dates? A. It is all stated there; the policies were surrendered to the company and a consideration given for them.

Q. Canceled absolutely? A. Canceled absolutely.

Q. The last one was not forfeited; there were three? A. Yes, sir; they were restored at the instance of Mr. McCurdy, the vice-president; very wrongfully, I think, for they were restored in the aggregate, whereas the young man had never been insured for more than one at a time; \$5,000 was the maximum amount that he was ever insured for and paid premium on; and they were restored for the sum stated there, which I think was some \$14,000, at the instance of the vice-president, and on the recommendation of the insurance committee.

By Mr. ATWOOD :

Q. Do you know what his salary had been or what it was? A. I think his salary was \$3,000, at the time of his death.

Q. Had he also received a bonus with the other officers? A. Yes, sir; bonus was awarded to all the officers of the company, with one exception.

Q. Do you remember how much his bonus was? A. It was, I think, \$3,750, the beginning of the year in which he died.

Mr. SEWELL :

It was all stated in the evidence last Saturday, and we concede that the amounts are right. There is no use going over the same thing.

Mr. DARLINGTON :

This testimony is only a repetition of Mr. McCulloh's, of course; I do not desire it, unless there is to be some additional testimony to contradict it.

Mr. SEWELL :

These figures are all in our books.

Mr. ATWOOD :

For the purpose of evidence, we will consider admitted that the amounts are correct.

Q. You were examined at the Miller investigation, were you not? A. Yes, sir.

Q. Do you know anything of the publication of the testimony in that case, and at whose expense it was published? A. The testimony, as published there, was at the expense of the Mutual Life Insurance Company, and the copy-right taken in the name of the company.

Q. What was that done for; what was the object of it?

Mr. SEWELL :

Does he know?

Mr. ATWOOD :

He will probably tell; if he don't know, he cannot tell.

WITNESS—There is no question about it; the intention was to prevent its being published by some one else.

Q. Did Mr. Winston know of its publication by the Mutual Life?

A. That I don't know; I have no certain knowledge of that; he must have known it.

By Mr. DARLINGTON :

Q. Were you applied to by Mr. Wreaks in regard to the policy on Mr. Winston's life ? A. Mr. Wreaks did call upon me in reference to that policy.

Q. Are you personally acquainted with the facts in regard to it ?

A. My information is entirely from Mr. Wreaks.

Mr. DARLINGTON :

In reference to the other policies, as I understand, you proposed to produce this book to the committee, so that they can have the whole of it; there were a number that I didn't ask Mr. McCulloh about ?

Mr. SEWELL :

Certainly.

Mr. ATWOOD :

And what is in the books is to be taken as true ?

Mr. SEWELL :

Taken as printed, and as it is there.

Mr. DARLINGTON :

As a part of this investigation ?

Mr. SEWELL :

The whole testimony is to be taken; if there is contradictory testimony, it is to be taken as contradictory testimony; I cannot limit the committee in regard to its conclusions; I offer to produce this book, and I will hand it to the committee to show what was investigated at the time; what its effects upon the committee will be, I cannot stipulate.

Mr. DARLINGTON :

I ask if the facts therein are the same as if we had given them in evidence now ?

Mr. SEWELL :

Of course they are the same; some of them are not true; some are contradicted by other evidence; it is to be gathered from the whole thing.

By Mr. DARLINGTON :

Q. Do you know anything about the resolution of the committee, suspending the president's salary? A. I was aware of the suspension of the salary account of Mr. Winston for some considerable time.

By Mr. ATWOOD :

Q. Did you then know the reason why it was done, or do you know why it was done, either through Mr. Winston or any one else; state what you know in regard to the facts? A. I cannot answer that specifically, because it is only an opinion of mine.

Mr. SEWELL :

I object to it, then.

Q. State what facts you have in regard to it? A. The facts are that the salary was suspended for some time, and Mr. Winston drew odd amounts at irregular times, for family expenses, as stated in his evidence.

Q. Did he draw at his own pleasure? A. Yes, sir; those amounts were charged to him, and after his settlement with his creditors his salary was fixed and determined by a committee who were appointed some two or three years previously.

Q. And how was this account charged during the time he was drawing the funds from the company? A. To suspense account.

Q. Have you read the petition of Mr. English? A. I read it at the time it was printed; although I have not read it for some weeks.

Q. I would like you to look at that petition, and see if there are any facts that you can state in reference to the subject-matters contained in that petition; you understand the subject-matter of the petition? A. I do.

Q. Any wrong committed upon the part of the officers of this company? A. Some of the statements made are not new to me; they are what I have myself charged; some of them I think are not true, and some I have no knowledge of.

Q. You may state what, in the petition, you have charged yourself? A. This loan to Mr. Husted; this amount paid to Mr. Husted was unquestionably a loan of \$30,000, and a loan in violation of the by-laws of the company; and when it was made I objected to it, as auditor, or rather I called attention to it; and I went to Judge Bradford, who was then the counsel of the company, and stated the facts,

and asked his advice about it, and the result was that he promised to investigate it fully, and I said if he would do so I would be guided by his judgment; a committee was appointed to investigate it, and the facts were proved that it was a loan to Mr. Husted, in violation of the by-laws of the company.

Q. By Mr. Winston? A. By Mr. Winston, and at the same time I think there was no risk in it; the criticism was that it was an attempt to conceal what was an improper transaction; to conceal from the trustees, by reason of this wrong entry—I may call it a false entry—of this clerk; I was cognizant of it at the time, and objected to it when the committee made their report; I recollect asking Judge Bradford how it was possible to make a report contrary to the evidence, and his reply was, “The interests are too vast to do otherwise;” I also asked the same question of General Wadsworth, a trustee, and his reply was, “The pressure is too great.”

By Mr. DARLINGTON:

Q. In regard to that advance of moneys to Col. North; what about that? A. They were sums of money that were advanced to the State agent by Mr. Winston, on his personal responsibility; and they were erroneously reported as being cash in the cashier's hands; there is no question about that.

By Mr. ATWOOD:

Q. Will you look over *that* (the petition), and see if there is any other matters in the petition that you are cognizant of? A. There is a statement here of the collecting, retaining and employment of a large number of proxies by himself—that is, Mr. Winston and his fellow-officers—to enable him to elect such trustees as he thinks proper.

Q. What do you know about that? A. I know that the agents are in the habit of collecting proxies in the name of Mr. Winston and Mr. McCurdy, to enable them to use the power at the elections.

Q. Was there any expense attendant upon it? A. Yes, sir; there is the expense of the notary—the notarial fee in this action.

Q. By whom are those fees paid? A. In some cases they have been paid by the company.

Q. Blanks are sent out and prepared? A. Blanks are sent out by the agents, and they request the policy holders to fill them up, and they are transmitted to the officers.

Q. And those blanks are prepared at the expense of the company, in the company's office? A. Yes, sir; the possession of these proxies enables the officers of the company to control, beyond any peradventure, the elections; they have more proxies probably at this moment than could be cast personally in twenty-four hours; whereas two hours is the time which the polls are open; so that, practically, they have the full power to put in and put out whom they choose.

Q. The present officers of the company? A. The present officers of the company.

Q. About how many thousand? A. That I cannot say; but to the extent of thousands.

Q. A number of thousands? A. Several thousand, without doubt.

Q. Do you know of there being public comments made upon the conduct and management of this company by Mr. Winston? A. Yes, sir; they have been criticised in the papers very freely, the last six months particularly.

Q. And had these acts been referred to and spoken of prior to June, 1872? A. Yes, sir.

Q. They have been for the last two years? A. Yes, sir; for the last four or five years.

Q. In the public press of the country? A. Yes.

Q. Not only in the Insurance Journal, but in the leading daily papers of the country? A. In both.

Q. And with insurance men, and persons outside the press? A. Yes, sir.

Q. You spoke a little while ago about the opinion of the counsel in regard to the manner of making these dividends; you are an expert in insurance matters, are you not? A. That is my profession.

Q. Is it rutable for counsel to fix the manner of declaring dividends, or for the actuaries? A. It is the custom, of course, for the counsel to define the legal requirements of the charter, and it is the duty of the actuary to make his plans accord with such decisions. The point I made was this: That in 1865, I think it was, the method of dividing the surplus was brought before the attention of a special committee appointed for that purpose, and the plan adopted was submitted to them by myself, at their request, in writing; and when I did so, I mentioned as a defect the point which the counsel of the company, five years afterward, decided was illegal; and that the first committee had this point, as a defect, brought before their attention, and they decided it was of no moment; my statement was

that the decision of counsel three years ago, in 1869, four years ago, was in direct conflict with the decision of the counsel of the company five years prior, when the point at issue was submitted to them directly as a defect; so there could have been no excuse for not seeing it; it was seen.

Q. What is your judgment about being retained by this company, if you had continued to audit this account as directed?

(Objected to by Mr. Sewell, as being outside of any possible line—)

Q. I will ask if your relations had always been friendly with the company until this time? A. I had, in the course of duty as auditor, frequent occasions to speak of items; and on more than one occasion I had felt it my duty to criticise the payments, and I had invariably been prevented from bringing the point to a proper consideration; I recollect one instance particularly, the first that ever occurred; it must have been as far back as the year 1859, the payment to the Auditor of Pennsylvania of taxes for six years in advance; there was no guarantee that they could not exact the same amount the following year, and the payment was in violation of the rule of the company, which was that all unusual payments should be authorized by the finance committee; I mentioned the subject to Mr. Winston, and in a very courteous and proper way, as I thought, urged some objections against it, and asked his advice what I should do; Mr. Winston was very much offended and spoke very harshly, and I suggested that it should be sanctioned, both for his protection and for mine; for while I wished to perform my duties thoroughly, I wished to take no responsibility, or assume any extra powers; and Mr. Winston's remark was that I should never sit in judgment on him, and he refused point-blank to have it referred to a committee; I suggested one committee as the one to be referred to, and he very quietly had it referred to another committee as a new subject, and it was authorized, and, of course, the matter ended.

Q. Is Mr. Winston rather of a hasty, passionate temper? A. I consider him a very arbitrary man.

Q. By looking over the petition, are there any other matters you wish to refer to? A. There are none others that come to me that I have positive knowledge of.

Q. Are there any other matters there that have been commented on by the press? A. They have all been commented upon in the public journals, I think.

Q. All the charges in the petition? A. All the charges.

Q. What remedy have these policy holders while the president holds these proxies? A. No remedy whatever; the proxies enable him to put whomsoever he chooses in as trustees, and put whomsoever he chooses out of office.

Q. As an insurance man, would you advise the passage of a law forbidding officers of a company holding proxies?

Mr. SEWELL:

I object to that.

Mr. ATWOOD:

I understand it is a part of the duties of this committee to inquire what legislation is necessary to protect these policy holders.

Mr. SEWELL:

I don't understand that to be one of the functions of this committee; this committee, as I understand it, is the standing committee of the house on grievances; they are here to examine what grievances Mr. English has suffered at the hands of the Mutual Life Insurance Company or Mr. Winston; we are not here to recommend legislation on the subject of insurance, which is within the particular division of labor of another standing committee of the House of Representatives; it would be a very extraordinary thing, indeed, if the committee on grievances are to leave the consideration of their own subject, to which they are appointed, and take up railroads, or cities, or insurance—

Mr. ATWOOD:

But the grievances of these policy holders, as appears by the evidence, is very great.

Mr. SEWELL:

There is no one here complaining.

Mr. DARLINGTON:

Mr. English is a policy holder.

Mr. SEWELL:

He is here in jail, and he brings a complaint—

WITNESS (interrupting)—I am a policy holder.

Mr. SEWELL :

So am I ; if this committee desire to examine into the functions of a sister committee, not left to them, they must do that over my protest recorded on these minutes ; there is a limit at which this investigation must stop ; there is a circle that will inclose all the investigation here, and I say that circle has been reached ; we are not going to examine whether or not it is best to pass laws on insurance ; the committee has the power to do it, of course ; but at the same time I must discharge my duty in calling the matter to their attention.

Mr. DARLINGTON :

I will only call the attention of the committee to one or two facts which appear upon the petition ; the first sentence is that Stephen English is a policy holder in the Mutual Life Insurance Company of New York ; the petition sets forth the fact that because he has made those publications he has been arrested and is in prison ; as I understand the functions of the committee, they are to inquire not only whether he has been arrested in accordance with judicial form, but whether there has been any abuse of the process of the law, and whether any remedy in the law is necessary as to the matter set forth by him in his petition ; not only his imprisonment, but the other matter set forth in his petition.

Judge PORTER :

I desire to submit, Mr. Chairman of the committee, that there is no pretense that Stephen English has been deprived of the right to vote ; there is no allegation in this petition which justifies the committee in initiating a movement to disfranchise 75,000 out of 80,000 of the policy holders of the Mutual Life ; as the law now stands, every policy holder is entitled to vote, and by proxy ; the complaint is made by a single policy holder that, by violating the laws of the State, he has been subjected to duress ; that he has exercised his right to libel a citizen, and that he ought not to be imprisoned for it, although the courts order such imprisonment ; that is the complaint, and the only complaint that is before this committee ; incidentally the question arises whether Mr. Winston, the party whom he libeled, has been guilty of certain malpractices as an officer of the Mutual Life Insurance Company ; certainly it is not and cannot be alleged that Mr.

Winston was guilty of any malpractice towards Stephen English, in exercising his legal right to represent any policy holder who chose to make him his representative for the purpose; the affairs of the Mutual Life Insurance Company are only so far involved here as Mr. Winston is charged with having embezzled the funds or misappropriated the property of that company, in the justification set up by the libel; as a matter of course, I know this committee does not desire to usurp a jurisdiction not conferred on them by law; I know that they can have no desire to extend this investigation beyond the purpose and the topics to which it is appropriately limited; it is entirely true that by our acquiescence, and not otherwise, hours and hours have been occupied to-day, as they were occupied before, in taking testimony which is wholly irrelevant to the issues; but it is because we choose to give the amplest latitude for the purpose of preferring all the charges that baffled and disappointed malice could invent, before we come to reply to them, and call upon you to pronounce the same judgment which has been pronounced by every tribunal hitherto that has had occasion to pass upon these questions; it is not to be considered that, by the fact that Stephen English and Frederick S. Winston have a controversy in the courts, the powers of this committee are extended to reform the life insurance system of the State of New York, or to revolutionize the administration of the Mutual Life Insurance Company. That constitutes no part of their duty, and, most certainly, they would not assume the burden of an investigation which would cover more than a quarter of a century of successive administrations connected with this Mutual Life Insurance Company.

I submit to the committee, as commending itself to their judgment, that the extraordinary feature has been presented here, of these libels, streaming with malice against a corporation which stands to-day at the head of the life insurance companies of the world; and that, among all those charges, there is not one of infidelity to their trust—of corruption in the discharge of official duty—not one but that can stand the test of investigation even upon the evidence already adduced; you have before you a company more prosperous than any other which exists under the laws of New York; and it is a prosperity, not in the interest of stock holders, as in the ordinary cases of corporations, but it is in the interest of 80,000 citizens of the United States—a large portion of them in our own State, a large portion of them without it—and every one of whom is to be affected in his interest by

having these libels receive even passing credit at the hands of anybody; the 80,000 are on trial here; it is not Frederick S. Winston or Mr. McCurdy; you are called upon now to deal with the rights of 80,000; and the mode in which it is proposed to deal with them is to submit to a gentleman of undoubted respectability, and who may think himself competent to make laws for the State of New York, the question whether it would not be better to disfranchise 75,000 of them at a single blow.

Was it ever contemplated that any such question should be submitted to this company? Is the right of a party owning property, to be represented on that property, to be struck out in this manner? Is it on the ground that one libeller cannot get bail that it is proposed to remedy the grievance by striking at the elective franchise of 75,000 property owners? Why, I should think that such a thing is not to be tolerated for a moment. If such a matter were to be proved, could anything be more ludicrous than for the law-givers of New York to leave the Capitol and hold a session at the Metropolitan Hotel, to have a discarded official of the Mutual Life Insurance Company tell them what laws they should make; to have him give them his opinion as to their duty. I object to the mode of proof. I understand it to be a universal rule that judges deem themselves competent to discharge their duties, and legislators deem themselves competent to discharge theirs. The judge does not call upon any officials of any corporation to advise them what decisions they are to pronounce in causes. Neither do legislators take roving commissions to gather opinions from men here and there as to what laws they shall enact. The facts are before you. The resolution conferring your powers is before you. The issue is between the man charged with this grave *tort*, and lying in jail because he is unable, in a city of 1,00,000 people, to find anybody to become his bail, and Frederick S. Winston, who stands to-day at the head of the greatest of living corporations, who has the confidence of the policy holders of that corporation, the confidence of its trustees, the confidence of the community, but who has not the confidence of its discarded officers or of those whose grievance is that they have not been elevated to the position of holding office in that company.

I therefore respectfully submit to the committee that any such inquiry as this is wholly inappropriate, and the mode of proof is just as objectionable as the subject-matter to which it is directed.

Mr. ATWOOD:

If this question proposed to this committee to disfranchise one man, there would certainly be some weight in the gentleman's remarks; but, sir, it does not propose to disfranchise any one of 80,000 policy holders; it proposes to respect them; it proposes to protect them; and instead of placing them in the hands of a man with 80,000 proxies, it may be, in his pocket, and many millions of dollars at his back, it proposes to put them beyond the machination of such a man, and put them in the hands of a man whose interests are not to keep him there at the expense of the policy holders; it is in the interest of these men to put their proxies in the hands of a man that will not take their dividends to pay his own salary.

I submit, gentlemen, that it is a proper subject of inquiry for you to ascertain what will protect these policy holders; almost the first line of this petition is that Mr. English endeavored to protect himself and his fellow policy holders; and if this committee can see that it is for the protection of Mr. English and these 80,000 policy holders to put these proxies in the hands of some other man than Mr. Winston, I submit, gentlemen, that there is no clearer duty, no higher duty, that this committee can perform, than to recommend the passage of such a law; and I submit that there can be no better evidence to guide you than the evidence of this man upon the stand; and, sir, I believe that his evidence will carry to your minds, not the conviction of a discarded official, but that he stands there as an honest man, refusing to obey the dictates of this prince; and because he does so, he is discarded; it is the very reason why we ask this power to be taken away from this man—because he abuses it to the policy holders, as he abuses it to his trusted official.

Judge PORTER:

My friend is under a great misapprehension if he supposes that the tendency of this question is not to disfranchise the great bulk of the shareholders; the right which the law gives to every policy holder of this company is to select for himself a person to cast his vote; and of that right my friend proposes to have the Legislature deprive them. The right of suffrage is to vote as the voter pleases; and the right in the case of voting by proxy is to select *his* proxy, and not another man's, to exercise in his behalf the discretion and power which the voter chooses to confide to him. Now, on what ground is it proposed to deprive 80,000 men—except such a small

number of them as reside in the city of New York, and within convenient distance to attend elections—of this property right, a right which lies at the foundation of the contract, constituting a part of the scheme on which this association was incorporated, by which each policy holder should have the rights which, in another corporation, each stockholder has? When he paid his first premium and took his first policy, he bought his right to vote—through Winston or any other man whom he might select; and the gentleman now propose to submit the question to *this* gentleman (the witness) as to whether the right thus bought shall not be taken away without compensation. Mr. English's mistake is in supposing that this committee is to redress his grievances by inflicting a tenfold greater grievance upon multitudes of men who are here unheard. If *he* wants to vote by proxy, let him. If *he* chooses to vote personally, let him. But this man in jail is not in a position to constitute himself the champion of all others, and to say, "I will deprive them of their rights for the purpose of advancing my own interests, and punishing my enemy." *He* is the conceded enemy of Mr. Winston. *You* are not. *He* claims to have grievances against Mr. Winston. The *Legislature* does not. The *Company* does not. It is absurd to suppose that every one of these policy holders is to vote for the 80,000; and yet Mr. McCulloh's complaint is that a minority of one or ten or fifty cannot control the rest of the company. And he insists upon it, therefore, that the right of every one of this minority is to arrest the prosperity of this company, which has been great up to the present time, and to inaugurate a new theory which he is now to put forth, and by which the prosperity of the company in the future is to depend upon the correctness of his theories and those of Mr. Homans. But I wish to bring the committee back to the single question—why, did you come here to find out from this gentleman what laws you ought to pass? No. You came to investigate certain facts bearing on this petition. Those facts being before you, you will execute your own judgment as to whether a case is made for redress, and, if there be such case, what is the appropriate redress. This gentleman may be an expert as an actuary. He has no experience as a law-maker.

Mr. Atwood:

All I wish to say is that if the committee believes it protects these 80,000 policy holders to have such a law passed, it is their duty to advise it.

Mr. ABBOTT:

As I understand the province of this committee, it is to search for facts and not arguments or opinions. I don't think it is proper to take any opinions.

The CHAIRMAN:

We are sent here for the purpose of getting facts, and from those facts we would decide what to recommend.

Mr. ABBOTT:

The question simply asked for an opinion, and we don't want to get that.

The CHAIRMAN:

The witness can state any facts in the case. We sustain the objection.

By Mr. ATWOOD:

Q. Have you any knowledge of the motives of Mr. Winslow, in his late attempt to reduce the premiums of the Mutual Life Insurance Company? A. I have.

Q. State what?

Mr. SEWELL:

I object to that as not pertinent to the question of Mr. English's imprisonment, and it is not mentioned in the commission, that I know of. As I said before, there must be some limit to this matter. It is not one of the libels charged in any of the complaints. It is not in the petition to the Legislature by Mr. English, and it is something that, as yet, we have heard nothing of. It is in no way before the committee in this controversy, and cannot be. It does not form any allegation in the complaint on which Stephen English is arrested. It does not form any of the allegations which he makes to the Legislature.

Mr. DARLINGTON:

We will state what we expect to prove. We propose to prove by this witness that the reason of attempting to reduce the rates of premium was to attack other life insurance companies.

Mr. SEWELL:

I take that exposition of the proposed proof, and I say that you cannot admit it. Is there anything in Mr. English's petition to the

Legislature complaining that our company have attacked other companies, and therefore he has suffered grievances? Is there anything in our complaints against Mr. English alleging that he has published a libel to that effect? There is not in any way in any of those publications of Mr. English's, or these affidavits to the courts, or his petition to the Legislature, a word about the subject; and it is opening wider the door to let in all the gossip about life insurances that can be heard of.

Mr. ATWOOD:

It affects his standing as president of the company, if we show that he did it through certain motives.

Mr. SEWELL:

You are not here to try the standing of Mr. Winston as president of this company, except so far as it is involved in the charges made against him by Stephen English; and that is not one of the charges. There is no charge against Mr. Winston about this particular matter of reducing the rates.

Mr. ABBOTT:

If it is not in the petition, I do not think we should go into it.

Mr. ATWOOD:

There are many specific things that are not mentioned in the petition, but there is a complaint as to his general misconduct as an officer. The only way is to get at the facts; and the committee can judge of the facts better than anybody else.

Mr. DARLINGTON:

One of the allegations is that he has money in the Mutual Life Insurance Company, without reference to the interests of the policy holders, but for his own personal gain and selfish aggrandisement.

Judge PORTER:

Does that affect the allegations as to his acts?

By Mr. DARLINGTON:

Q. When was that attempt to reduce the rates? A. November, 1872.

Mr. DARLINGTON :

This was in reference to an article published since November ; the first of January, 1873, the article was published.

Mr. ATWOOD :

I think it is very material, in covering the term "mismanagement."

Mr. DARLINGTON :

Our proposition is this : I propose to show that he said that the company supported Mr. English in the articles which he wrote, and he made this proposition, of reducing the rates, to punish the companies which he supposed were supporting Mr. English.

Mr. SEWELL :

Do you mean to prove that Mr. Winston said so to Mr. Homans ?

Mr. DARLINGTON :

Mr. Homans can tell what he knows ; my intention is to prove that Mr. Winston made that declaration.

Mr. SEWELL :

To whom ? If you offer to prove that he made that declaration to this witness, that is one thing ; he would then be competent proof of such a declaration ; but if you offer to prove by him that Mr. Winston made that statement to a third party, I object to it as hearsay evidence.

Mr. DARLINGTON :

I have the testimony of a man—

Mr. SEWELL :

Where is he ?

Mr. DARLINGTON :

He is in England ; I will state to the committee what I propose to prove, exactly, by this affidavit ; I propose to prove that, in a conversation between Frederick S. Winston and Harry S. Homans, Mr. Winston stated—the conversation being in reference to the several attacks that had been made and were being made by the Insurance Times, the defendant's paper, upon the company—that Mr. Winston stated that in his opinion these attacks originated or were encouraged by some life insurance companies, and that, if they did not cease, he

would retaliate by carrying out a plan that he had had in contemplation for some time, which was the reduction of the premiums of the Mutual Life Insurance Company some twenty or twenty-five per cent, and he would then see how the companies liked that.

This is an affidavit sworn to before a commissioner in London, on the 19th of December, 1872, who had authority to administer oath according to common law, and certified to before the American consulate.

Judge PORTER :

We object to that, on the ground that we desire to cross-examine any witnesses sworn in this case. Mr. Darlington proposes to introduce before this committee an affidavit sworn to before this case was referred to this committee, and deprive us of the right to cross-examine.

Mr. SEWELL :

And sworn to before this Legislature had a legal existence ; before it had convened and elected a speaker.

Mr. DARLINGTON :

This committee is appointed to gather information. If it was a court of law we would either have to produce him, or have a commission issue, so that the opportunity could be had to cross-examine him ; but I do not understand that the committee is limited by those rules in this matter. The testimony which I offer, I deem material, in showing that this plaintiff undertook this plan of reducing his rates to punish some unknown adversary, because he supposed they were supporting Mr. English in the Insurance Times. In that light I consider the testimony important. I cannot produce the witness for cross-examination, because he is not in this country.

Judge PORTER :

The committee has power to administer oaths, to take depositions and issue commissions. This is neither. We have a right in every case, to cross-examine.

The CHAEMAN :

The committee has decided to receive the evidence. We will give it such weight as we think it should have.

Mr. SEWELL :

Do you mean the affidavit will be accepted ?

The CHAIRMAN :

The question put to the witness on the stand.

Q. Have you any knowledge of motives of Mr. Winston in his late attempts to reduce the premiums of the Mutual Life Insurance Company, and if so, what? A. Mr. Chairman, when the subject came up of reducing the rates of premium, I remembered a conversation I had had some month or two months prior with a relative of mine, Mr. Harry S. Homans, now of London, who was formerly general agent of the Mutual Life Insurance Company, in which he stated—

Mr. SEWELL :

I object to that as hearsay. I object to any irregular methods to get in statements of third parties here.

WITNESS—I am merely stating the fact.

The CHAIRMAN :

This gentleman that you speak of, who is now in London, you say was an agent of the company? A. Yes, sir.

Mr. DARLINGTON :

And he remembered the conversation and now states it.

Judge PORTER :

We object to the declaration of Harry Homans to the witness, as hearsay.

By Mr. SEWELL :

Q. He was not an agent then, when you had that conversation with him, was he? A. He had business relations with the company.

Q. Was he an agent of the company? A. No, sir; not then.

Q. What business relations had he with them? A. He states in his affidavit.

Q. To your knowledge, what business relations had he? A. Connected with his agency in California.

Q. His former agency? A. Yes, sir.

Q. He was not an employe or agent or officer at the time you speak of? A. No, sir; no connection.

Mr. SEWELL :

We renew the objection on the ground that it is mere hearsay of the statement of a third person, who had no connection with the company, and whose declarations cannot bind the company.

Mr. DARLINGTON :

I don't suppose that the committee are bound by the rules of evidence which would prevail in a lawsuit. I suppose they are entitled to get facts, and that they may use other methods than those known to the regular courts of common law. I wanted Mr. Homans to give the facts. He was going on to state what facts he had found out.

Mr. SEWELL :

He was going on to state what another gentleman said.

Mr. DARLINGTON :

He was going on to say what he wrote, as I understand.

Mr. SEWELL :

I object to his stating what he wrote.

Mr. DARLINGTON :

Do you want us to bring out what he wrote, and if he got an answer, then to put the answer in.

The CHAIRMAN :

The committee decide that we have no particular rules. In regard to this matter, we want to draw out what facts we can that bear upon the case, and then we will give it whatever weight we think it deserves. We decide that he may go on and make this statement.

By Mr. Atwood :

Q. State as briefly as you can? A. Mr. Chairman, Mr. Harry Homans, who was in New York in the months of September and October last, stated to me at that time that he had a conversation with Mr. Winston, who threatened to reduce his rates of premiums, and gave his reasons for it; and when the threat was carried to execution, or attempted to be, I wrote to Mr. Homans in London, asking him to put in the form of an affidavit the subject of his conversation with Mr. Winston; and, in reply, he sent me this affidavit, which, with your permission, I will read.

Mr. SEWELL :

We renew our objection to this affidavit, and we want it put in the form of a protest, as a violation of the fundamental rules which guide this committee, and as an abrogation of the power of the com-

mittee with respect to it. We say you have no power to read in evidence a paper executed before that officer without giving us notice of the time and place of its execution. We desire that that should be entered at large upon the minutes of this committee.

Mr. DARLINGTON :

The name of the officer is Josiah Nunn.

WITNESS (reading the paper):

“ CITY OF LONDON, ENGLAND, ss. :

“ HENRY S. HOMANS, being duly sworn, doth depose and say : I am the manager for Europe of the New York Life Insurance of New York, residing in London, and I was for several years the general agent of the Mutual Life Insurance Company of New York, for the Pacific coast. During the month of October, A. D. 1872, I had an interview, in the office of the Mutual Life Insurance Company of New York, with Frederick S. Winston, the president of that company ; the subject of conversation between us was in relation to the attacks that had been and were being made upon him by the Insurance Times of New York. He stated that, in his opinion, those attacks were originated or encouraged by some life insurance companies, and that if they did not cease he would retaliate by carrying out a plan that he had had in contemplation for some time, which was that of a reduction of the premiums of the Mutual Life Insurance Company to the extent of twenty or twenty-five per cent, and that he would then see how they (the companies) would like that, or words to that effect. His manner of speaking was undoubtedly of a threatening character as to the companies that he stated were encouraging the attacks on him ; and he did not state any other reason or justification for making the reduction of premium, except that he considered that ‘ the Mutual Life Insurance Company could stand the reduction better than most other companies,’ and further deponent saith not

(Signed)

HARRY S. HOMANS.

“ Sworn, at No. 1 Dunster court, Mincing lane, in the city of London, this 19th day of December, 1872, before me,

(Signed)

J. NUNN,

A London Commissioner to administer oaths in common law.”

"Consulate-General of the United States of America, London."

"I, Adam Badeau, Consul-General of the United States of America for Great Britain and Ireland, at London, do hereby make known and certify to all whom it may concern, that Joshua Nunn, before whom the annexed affidavit of Harry S. Homans was made, as appears by his signature thereto, is a London commissioner to administer oaths in common law, practicing in the city of London aforesaid, duly commissioned and authorized to receive affidavits and that to all acts by him so done, full faith and credit are, and ought to be given in judicature and thereout.

"In testimony whereof, I have hereunto set my hand and affixed the seal of the Consulate-General of the United States at London aforesaid, this nineteenth day of December, [L. s.] in the year of our Lord, one thousand eight hundred and seventy-two, and in the ninety-seventh year of the Independence of the said United States.

(Signed)

ADAM BADEAU."

The committee here adjourned to meet at the Metropolitan Hotel, at 10 A. M., Monday morning, April 14, 1873.

METROPOLITAN HOTEL, N. Y., *April 14, 1873.*

Committee met pursuant to adjournment.

Present—Hons. C. W. Herrick, chairman; Frank Abbott, A. Blessing, E. Townsend.

J. Thomas Davis, clerk.

O. T. Atwood, Esq., counsel to committee.

Thomas Darlington, counsel of Mr. English.

Robert Sewell, Esq., counsel of the Mutual Life Insurance Company and Mr. Richard A. McCurdy, the vice-president.

SHEPPARD HOMANS, recalled.

Examined by Mr. ATWOOD:

Q. You spoke the other day of some mismanagement on the part of this company; you may state what you referred to, and what points you complained of in the mismanagement of the company?

A. The principal objection that I have to the management of the company is the fact that the minutes are kept by the vice-president,

and are under the control of the president and vice-president ; and that facts which the trustees should know are withheld from them and sometimes misrepresented.

Q. You spoke the other day about a large number of proxies being held by this company ; will you state whether these proxies are voted on more than once, or are they continued by the company without obtaining new ones ? A. The proxies which the officers hold have been in their possession for a number of years ; and they are, I presume, voted on whenever there is occasion for it.

Mr. SEWELL :

I object to that answer ; we don't want Mr. Homans' presumptions ; if he knows whether they were voted on at all or not, we will take his answer to the question ; but when he says "I presume" they are voted on, it is not evidence ; let him state what he knows ; and not what he "presumes."

Mr. DARLINGTON :

I may as well make the point now ; and that is, in examinations taken before investigating committees we are not confined to the rules which govern investigations in courts of law ; in investigating committees, very frequently it is the case that you have to ask "What did you hear about this, and from whom did you hear it ?" And then get the names ; and ask this man "Did you know," and "Whom did you hear it from," and so on ; I have been perfectly willing, in regard to the main facts in this case, to have them just such facts as should be elicited, and in the same manner as in courts of law ; but when we come to investigating new facts, we are obliged often, especially in committees of this kind, to make what are called "leading questions," and calling for the persons who originated the stories, so that we may find out and trace whether there be truth in them, and trace it to the person from whom it originated.

Mr. SEWELL :

I don't object at all to the line of investigation made or sketched out by the learned gentleman, provided it is adopted by this committee ; but I don't see what *that* has to do with this case. Mr. Homans is not asked whether he knew they voted on them ; but he is asked a question in which he answers that he "presumed." Are you sent here to find out Mr. Homans' presumptions, or my presumptions, or any member's of this committee ? You are sent here to

discover *facts*, and not presumptions. If anybody told him that they were voted, let us have it. *That* we won't object to, if you say that is the right way to investigate it. There must be an end to fishing; there must be a depth to which the "bob and sinker" won't go down, and I respectfully submit that we have reached that when you reach presumptions. If he was told by anybody that those proxies were voted on at an election, let us have it; I won't object to that. But when he says, "I presume" they were voted on when they were wanted, *that* is not evidence; it is not evidence on which to hang a cat. He said he *presumed*, and I object to that. There is no one that likes fishing excursions better than I do, but I object to this. I move to strike out the last words, "are, I presume, voted on whenever there is occasion for it."

Mr. Atwood:

It may be evidence upon his future explanation. He may say he *knows* it, and then it is material evidence.

Mr. Sewell:

He does not say that he *knows* it. If he says that, it is all right; but at the present it is an improper answer to have on the record.

Mr. Atwood:

We may make it material by connecting links.

The Chairman:

Let him go on. If they have the connecting links that will make it proper, we will allow it. If not, we will have it stricken out.

Witness—These proxies were used in the election of 1869, when the largest number I have ever known to vote in person, voted what is called the opposition ticket; and it is a fact within my own knowledge, that the officers do hold a large number of proxies, and are ready to cast them whenever it is needed; and that these proxies are not limited to one year, or any number of years.

Q. Is Mr. Wadsworth one of the trustees of this company? A. Yes, sir.

Q. What do you know about his receiving any pay for services rendered for the company, and for what? A. I have no knowledge of any compensation to Mr. Wadsworth.

Q. It has been remarked during this investigation that this company possesses the largest amount of assets of any company doing business; is that true? A. That is true.

Q. How about their liabilities; have they not also the greatest amount of liabilities of any company? A. That is also true.

Q. How great is the margin between their liabilities and their assets? A. An estimate, or rather a calculation, is made each year of the liabilities, and all the assets over and above that amount is, by the charter, required to be divided among the policy holders each year; each year, *now*; *formerly*, once in five years only.

Q. Is that done? A. It was done whilst I was there; I have no knowledge since I left the company.

Q. In this petition there are complaints made of this large number of proxies being held by the officers, and putting themselves in place, and keeping themselves there by these proxies; now, how do you propose to remedy this?

Mr. SEWELL :

I object to that question. The question objected to is the same question exactly that you heard a long discussion on, on Saturday. The same principle is involved in it which you then decided was an objectionable one. You will remember that my learned associate, Judge Porter, argued that the committee was here to hear facts and not to get opinions as to those facts; and after a very full discussion the committee decided that they were here to find out facts, and that they did not want people's opinions as to the best remedy. This question now asks Mr. Homans how he is going to remedy a state of facts which the other side claim to be an evil.

Mr. ATWOOD :

I don't propose to argue this question. I simply find by this petition that this is one of the evils complained of; and I take it that it is a part of the duty of this committee to report in what manner these wrongs can be redressed, if there are wrongs; and the committee have a right to receive this evidence for their own light and benefit.

The CHAIRMAN :

The committee decide that whatever information we can get, in regard to this matter, we will take; we can weigh it in our own minds when we come to make our report, and see what there is of it. We were sent here to get all the information, and ascertain what corrections are necessary, if there are any; I think there can be no harm in that. This seems to be the opinion of the committee.

WITNESS—I will submit my views, with considerable deference, to the committee, and very briefly. The Mutual Life Insurance Company is a mutual corporation, in which there are no stockholders, and each person exercises his right of voting by proxy, if he chooses; and it is claimed, very justly, that those who are at a distance would not be able to give their vote, excepting by proxies; but a prolific source of evil in that corporation and in others is the use of proxies for an indefinite length of time. A large number of proxies have been gathered by the officers and are held. In my judgment, if the Legislature should see fit to limit the use of a proxy to the election named in the instrument, or within a period of twelve months, as is the case now in Massachusetts, by law, it would be the means of righting whatever evil may exist, and would be in all respects beneficial.

Cross-examination by Mr. SEWELL:

Q. Was the Mutual Life Insurance Company the first life insurance company that you were connected with? A. Yes, sir.

Q. And you went into the service of that company about the year 1858? A. 1856 I entered the service of the company; the commencement of the year 1856.

Q. At that time you had had no special life insurance training? A. No, sir.

Q. You had studied the higher branches of mathematical science, and were selected to fill the position of actuary in that company, then vacant; but you had no experience of the application of mathematical science to life insurance, as I understand? A. No particular experience.

Q. Can you tell us what the assets of the company were, in round numbers, when you went into the office? A. I think they were about \$2,000,000.

Q. There were about how many policies in existence? A. My impression is that there were not more than 5,000 or 6,000.

Q. Insuring about how much, if you remember; I mean in round numbers? A. About \$15,000,000, I think.

Q. And the company now has how much of accumulated assets? A. They had on the first of the year some \$58,000,000.

Q. And how many outstanding policies? A. 78,000, I think.

Q. Insuring about how much, if you remember? A. I think the amount of risk is something like \$275,000,000.

Q. Has the course of the company, since you first went into it, to the present time, been constantly and continuously years of prosperity, or otherwise? A. It has had a very prosperous career.

Q. Unexampled in the annals of life insurance? A. In some respects.

Q. In respect to the volume of its business? A. It has always had the largest volume of business in this country.

Q. With respect to the secure investment of its assets, how does it stand with relation to other life insurance companies in America and the rest of the world, that you know of? A. I think the investments are as secure and prudently managed as that of any company of which I have any knowledge.

Q. Did you ever know of any losses in the investments of the moneys of the company, except the one that was spoken of on Saturday? A. Yes, sir; there have been some few losses in investments.

Q. Amounting to how much in the aggregate? A. A very small amount in the aggregate, compared with the amount invested.

Q. Trifling, is it not? A. Trifling compared with the amount invested.

Q. Your views on the subject of proxies have undergone a change, have they not, in the last three or four years? A. Never.

Q. Have you always advocated the limitation of the right to appoint a proxy to one year? A. I have always had that opinion, but never had cause to advocate it.

Q. Did you not go to Albany, one year, to advocate the rejection by the house of a bill limiting the time in which proxies were to be used? A. No, sir.

Q. You never went before a committee on that subject, or made an argument on the subject? A. No, sir.

Q. Did you ever know an instance of any proxies being voted upon by Frederick S. Winston in the Mutual Life Insurance Company? A. I have never known proxies to be cast personally by Mr. Winston; I have known of proxies in Mr. Winston's name being cast.

Q. Proxies authorizing Mr. Winston to vote, voted by some one else? A. Proxies authorizing Mr. Winston or Mr. Richard A. McCurdy to vote, and those proxies cast.

Q. By whom? A. By Mr. McCurdy.

Q. At the election of 1869? A. Yes, sir.

Q. At any other time that you know of? A. I have never attended any election, and only know of that accidentally.

Q. You are a policy holder in the company? A. I am.

Q. Why did you not attend the election? A. I never thought it proper for an officer of the company to take any part in the election.

Q. Did you never vote in any election? A. Never have voted at any election.

Q. Did you ever hear that Mr. McCurdy or Mr. Winston had voted proxies at any other election than the election of 1869? A. I heard at an election some years ago that Mr. Winston had his proxies ready to vote, and would have cast them had there been necessity to do so.

Q. Who told you so? A. Mr. Winston.

Q. When was it? A. It was at the time of the election of Mr. Child, who is now a trustee of the company; he had collected proxies himself, and cast them, by which he himself was elected; and Mr. Winston consulted with one or more of the trustees in regard to the propriety of defeating him, as he stated he easily could, or of allowing him to be elected.

Q. What did he do? A. He allowed him to be elected.

Q. Did the trustees request him to allow him to be elected? A. I don't know.

Q. He had the power in his hands to defeat this gentleman, but declined to use it; is that what I understand? A. He did.

Q. You know of no other instance, then, in which he used the power which he had, by those proxies, to influence the election, except the election of 1869? A. I do.

Q. Another case? A. Mr. William Moore, one of the corporators of the company, named in the act of incorporation, and a trustee from the commencement of the company, was left off, because he was in opposition to the management of the company.

Q. Left off the ticket by the nominating committee? A. Left off the list of trustees by Mr. Winston.

Q. Do you know whether, or not, Mr. Moore resigned his position before that election? A. He did not resign it.

Q. Mr. Winston's holding the proxies had nothing to do with that, had it? A. Certainly.

Q. How? A. Mr. Winston had the power to put any one in that he chose, at that time.

Q. By voting on the proxies? A. If it was necessary.

Q. But he didn't vote? A. I have no knowledge whether he voted or not.

Q. Have you any knowledge whether he ever left Mr. Moore off the nominating committee? A. It was *he* who left *him* off.

Q. How do you know? A. Because he wrote to him.

Q. Who did? A. Mr. Winston.

Q. Wrote to Mr. Moore? A. Yes, sir.

Q. Telling him of that fact? A. Telling him that he had heard some objections; inasmuch as he was not a policy holder.

Q. Was he a policy holder? A. He was not.

Q. Wasn't that sufficient to disfranchise him, and prevent him from being elected as a trustee? A. No, sir; trustees have been elected by Mr. Winston who are not policy holders.

Q. That was the objection, however, that was presented to Mr. Moore? A. It was the ostensible objection; the real objection is that he was in opposition.

Q. How do you know that? A. I know it of my own knowledge; he opposed the dividend system, which was insisted upon by the officers of the company.

Q. What was the method of dividing the surplus in the company, when you went into it? A. It was known as the percentage plan, by which the surplus was divided in proportion to the premiums paid.

Q. Without respect to the ages of the parties paying them, or without respect to any consideration, but merely the amount? A. Without any.

Q. How often was this distribution of the surplus made? A. Three times.

Q. At what period? A. In 1848, 1853 and 1858.

P. When was there a change in the method of distributing the surplus? A. The change was adopted in 1862, and applied in 1863.

Q. What was the change? A. The change was to a plan known as "the contribution method" of dividing the surplus, by which each person received an amount in proportion to that which he had contributed to the formation of the surplus.

Q. That plan, as I understand, was invented or elaborated by you? A. It was.

Q. And was first applied by the Mutual Life Insurance Company to the distribution of dividends? A. It was.

Q. Will you explain to the committee how there comes to be a surplus distributed in the business of mutual life insurance? A.

The surplus arises chiefly from four sources ; one, the excess of interest over four per cent, which is the rate assumed by the company for the future ; another, in the saving from the mortality called for by the tables ; the third is that portion of the margin added for expenses and contingencies which has not been used ; and the fourth is from lapses, or policies given up.

Q. Please explain to the committee the constituent elements of the premium payable by a party assured on a life insurance policy, and how those premiums are prepared by an actuary, and the principles upon which they are prepared ? A. The premiums for life insurance are deduced by the mathematical process in which the contingencies of the future are estimated, it being necessary to assume a rate of mortality for the future, and a rate of interest ; and a margin is added to the net premiums so determined, in order to cover expenses and guard against adverse contingencies.

Q. What rate of mortality is assumed in the preparation of the Mutual Life Insurance Company's tables, as distinguished from the rates of mortality assumed in the preparation of tables in other countries and in this country ? A. The rate of mortality which forms the basis of the premiums in the Mutual Life Insurance Company, and in almost all the other companies in this country, is that known as the American Experience Table, which is the standard adopted by the State of New York.

Q. That table is the result of the observance of the mortality of various life insurance companies in America, is it not ? A. It is a table prepared by myself from the experience—the results of experience chiefly in the Mutual Life Insurance Company, but affected by the experience of all the other companies, as far as I could ascertain them.

Q. State what you assumed to be the rate of interest that the company will get for its money, in making up these tables ? A. The rate of interest assumed by the Mutual Life Insurance Company, in estimating these liabilities—

Q. Not that ; I mean now, when you are making the premiums—A. In the determination of the premiums then, it is four per cent.

Q. And how much margin—I believe it is technically called “loading,” is it not—how much margin, or “loading,” is added, to cover expenses ? A. The loading to cover expenses and contingencies together—they are not separated—varies, it being in the highest forty

per cent ; and varying from that, down to a margin of about twenty-one or twenty-two per cent.

Q. On what class of policies is the margin of twenty-one or twenty-two per cent ? A. On endowments.

Q. And the forty per cent is on the whole-life policies ? A. On the ordinary life policies.

Q. What expenses and contingencies is that forty per cent meant to cover ? A. Expenses of all kinds, and contingencies of all kinds.

Q. What are the expenses of a life insurance company ; classify them ? A. The expenses chiefly are commissions paid to agents for procuring business, and the ordinary expenses of conducting the business when it is once obtained.

Q. Contingencies, I suppose you mean to be variations from the rates assumed ? A. And also losses of all kinds.

Q. In the twenty-six years that the Mutual Life Insurance Company has been in existence— A. The thirty years.

Q. Thirty years that it has been in existence, has it not always received more than four per cent for money ? A. It has.

Q. What has been the average interest rate per cent, per annum, for its invested moneys during that time ? A. A fraction over six per cent.

Q. Has its expenses and its contingencies—its average expenses and contingencies—during the period that it has been in existence, amounted to anything like the amount which has been added to the premiums for loading ? A. The expenses during the first year—

Q. Of the Mutual Life ? A. The first year of insurance—

Q. I say of the Mutual Life Insurance Company ? A. Taking the company as a whole—I understand your question—the expenses and contingencies have never yet, in a single year, to my knowledge, equaled the loading.

Q. There was always, then, in every year, an amount saved from the assumed amount of the premiums ? A. Taking the company as a whole, yes.

Q. Which are to be returned to the policy holders ? A. Yes, sir.

Q. Will you explain to the committee ; you can do it much better than I can, in framing the question ; will you explain to the committee the fact that, although called dividends, these divisions of surplus in the Mutual Life Insurance Company are not by any means the profits of the business ; but are, in fact, the amounts which the uncertain nature of the business has required the company to take from

the policy holder, in the first instance; and which they then return to him; you understand my idea; and you can express it to the committee much better than I can? A. I think you have stated it very clearly; the fact is, that there is no such thing as profits in a mutual life insurance company.

Q. In a mutual life insurance company? A. In a mutual life insurance company; the dividends, so called, are simply the restitution of the surplus or savings of the policy holders, from the amounts which prudence seems to demand should be charged.

Q. The addition of an amount to the premium, more than is necessary, more than prudence demands, causes an addition to the expenses of the company, does it not? A. Not necessarily.

Q. Is not the agents' commission based upon the amount of the premium paid? A. It is the practice; but it is not in accordance with true principles, I think.

Q. Do you know of any life insurance company that does not pay its agents upon the principle of the amount of premium paid? A. Some companies in England pay a commission in proportion to the amount insured.

Q. Do you know any case in America? A. I do not.

Q. It is the universal practice in America, is it not, to pay the agents a certain percentage of the premium paid to the company? A. A variable percentage; some kinds of insurance larger, and some smaller.

Q. Certain on some kinds of policies, but variable as to the variable condition of the policies? A. Yes, sir.

Q. That is to say, there is a rate for endowment insurances, and a rate for life insurances? A. Yes, sir.

Q. In all cases it is a percentage upon the amount of premium, is it not? A. It is.

Q. I understand you, now, that the system in vogue in the Mutual Life Insurance Company, when you went there, and sometime afterwards, for three periods of distribution of surplus, was the return of this amount of surplus to the various parties contributing to it, *pro rata*, as to the amount contributed? A. On the contrary, it was *pro rata* to the amount of premium they had paid.

Q. That is what I meant to say; you see a meaning in my question which I do not? A. Yes, sir.

Q. You advised the plan of returning it to them in accordance with the amount which each person had contributed to the surplus? A. I did.

Q. How many dividends were made upon that plan? A. There was one in the year 1863; the next was in 1866; and from that time to this, one has been made each year.

Q. According to the old system, the division of surplus you calculated upon the first of January—the amount which it was necessary to reinsure all the outstanding risks of the company—and you took account of the assets of the company, and you deducted the liabilities from the assets, and the balance was divisible surplus, was it not?

A. Yes, sir.

Q. Now, state how you arrived at the divisible surplus when you made the change to the contribution plan? A. The surplus was determined in precisely the same way as it had always been; that is, by a careful estimate of each liability; and the aggregate liabilities were deducted from the aggregate assets, and the difference was the surplus.

Q. You divided, then, that surplus which was found upon the day upon which you made up the accounts? A. Yes, sir.

Q. Then, as I understand it, upon the first of January a dividend would be made—say a percentage of ten, fifteen or twenty per cent—upon the amount of premium which had been paid by the policy holder; that was not paid to him in cash, was it? A. It was not paid in cash in the early history of the company.

Q. That was, however, applicable to the reduction of his premium at the next premium-day, was it not? A. At first it was not; it was applied simply to the purchase of additional insurance.

Q. It was applied to the purchase of additional insurance? A. Yes, sir.

Q. Explain to the committee what that means; they do not understand it, probably? A. In the early history of the Mutual Life Insurance Company, which is the early history of life insurance in this country, the surplus was ascertained; instead of allowing it to be used as cash to reduce the premiums, more insurance was bought with it, thinking that would be the safer plan; that plan was followed until the year 1853, when a slight modification was made, by which the policy holders had the option of having more insurance or of purchasing an annuity, which would act as a reduction of all future premiums; in 1865, on my recommendation, the surplus was allowed to be used by policy holders as part payment of the premiums next falling due.

By the CHAIRMAN :

Q. You said to buy other insurances ; what was that—to pay the expenses ? A. No sir ; to increase the amount of insurance to be paid at death, or the maturity of the policy.

Q. You spoke about the profits accruing from lapsed policies ; about what would that amount to yearly in the company, while you were in it ? A. It would be very difficult to estimate it ; it is the gain from policies which are dropped or discontinued ; and also the gain from those policies which are purchased by the company ; it is far less than has been estimated, or is popularly considered to be the amount.

By Mr. SEWELL :

Q. While we are on that point, we might as well follow it to its conclusion ; policies that are lapsed or surrendered to the company break the mathematical average, and interfere materially with the calculations of the actuary, do they not, with respect to risks outstanding ? A. It is breaking the contract which the individual had entered into with the company.

Q. I do not mean that ; I mean, only healthy lives surrender their policies, or allow them to be lapsed ; isn't that the experience of the company—if a man is sick, he don't allow his policy to lapse, and don't surrender it ? A. That is a subject upon which there has been a great deal of argument, and some difference of opinion ; my own opinion is that men in unsound health would be very careful to keep up their insurance, and not allow it to lapse.

Q. Therefore, the apparent profit upon a lapsed policy is not a real profit ? A. No sir ; not by any means.

By the CHAIRMAN :

Q. I would like to ask you a question for one of the committee, who wants to know if there was a large amount of policies lapsed at the time of the breaking out of the rebellion ? A. A large number of policies lapsed, nominally ; but the company kept the reservation, as it is called ; that is, the equity owned by the southern policy holders, until the closing of the war ; and at the close of the war a very large amount was paid to them ; the southern policy holders were treated with even more consideration than our own men were—our own northern residents—if there was any discrimination.

By Mr. SEWELL :

Q. Was there any considerable amount of profits realized by the company by the lapsing of the southern policies during the war? A. There was no doubt some profit realized; but far less than is popularly supposed; in fact, I think, the Mutual Life Insurance Company would be better off to-day if they never had a lapse.

Q. They would be better off if they had no lapse, you think? A. Yes, sir.

Q. Is not that the general opinion with well-informed actuaries? A. I think so.

Q. It is more profitable to the companies for persons who have policies in them to continue to pay their premiums, than it is for them to fail in their contract and oblige the company to forfeit them?

A. It is in a well-managed company; forfeiting the policies is like killing the goose to get the golden egg.

By Mr. BLESSING :

Q. Have you any knowledge that any money was ever loaned at a higher rate of interest than seven per cent per annum? A. No, sir; the company have never lent money at a higher rate than seven per cent, required by law.

Q. They have no outside agents who receive a bonus? A. They have realized more than seven per cent on their government securities; but to my knowledge there never has been a loan made—

By the CHAIRMAN :

Q. That was legitimate; the seven per cent? A. That was perfectly legitimate.

By Mr. TOWNSEND :

Q. The man that makes this loan gets a large per cent for doing the business, doesn't he? A. That would be an individual matter with the agent; I have no knowledge, myself, of any agents having been employed.

By the CHAIRMAN :

Q. As I understand it, the actuary don't know anything about it; he does not have the handling of the funds? A. No, sir.

By Mr. SEWELL :

Q. We will go back to the matter of the distribution of surplus on your new plan..

Mr. Atwood :

I would like to ask how this is material.

Mr. Sewell :

You expressed yourself as desiring light ; we want to give you as the light possible ; it is very evident, on your side, that you don't know anything about life insurance ; we want to exhibit the whole business of the company ; you gave a partial, one-sided explanation of it ; and I want the committee to understand it.

Mr. Atwood :

We knew enough to get out what we wanted.

Mr. Sewell :

We know enough to get out what *we* want ; I don't think it possible for you to understand this investigation, unless you have Mr. Homans' views on the subject ; and he is the only witness who is capable of giving them. Besides, I want to correct a great many misstatements and absurd reflections of the last witness upon the stand—Mr. McCulloh, who pretended to give you views of life insurance, which were crude, undigested and erroneous ; and which will correct by Mr. Homans, who knows all about it.

By Mr. Sewell :

Q. Under the old system of dividing the surplus, the dividend was made on a certain date ; and if a person died after that date, during the year, he was entitled, was he not, to what was called a "post-mortem dividend ;" explain that subject ? A. The dividends have always been made on the first day of February, till a change was made some four or five years ago, to the first day of January, which is a mere change in the date of the fiscal year ; and persons are, by the charter, required, or the company, by the charter, is required, to pay post-mortem dividends.

Q. Explain to the committee what a post-mortem dividend is ? A. A post-mortem dividend is that which is equitably due to a policyholder after his death ; if I pay a premium to-day to the Mutual Life Insurance Company, included in that premium is the germ of surplus of more than is necessary ; and if I die to-morrow, the company will charge against my premium my assessment for the claims by death, and the expenses ; and then, if there is anything left, it is as much due to my heirs as it would be due to me if I had lived ;

and the charter provides, first, that the surplus should be equitably divided, and, secondly, in the case of death, the equitable amount was to be paid to the person entitled to receive the same.

Q. After the method of distributing the surplus, which you devised, was there not a dividend made *in futuro* upon policies whose anniversaries arrived after the dividend day during the current year; was not a part of that dividend a dividend to be earned after the date of the calculation, and up to the anniversary of the policies? A. When the plan which I devised, which is called the "contribution plan," was suggested to the company, they very properly employed the best experts they could find to give opinions in regard to it; Mr. Elizur Wright—probably the first actuary in the world—and Professor Anderson, a very eminent mathematician, were employed to give their opinions in regard to the soundness and the equity of this particular plan of dividing surplus; and their opinion being favorable, the company adopted it; it was applied to the surplus as it existed on the 1st day of February, 1863; the post-mortem dividends—that is, the amounts due to persons who had died insured, were determined in that way by this same plan; the question arose then, in 1864, as to what the post-mortem dividend should be; and it was referred, with power, to a committee, consisting of the president of the company, the counsel, the actuary and these two gentlemen that I have named; and they decided, with the counsel, that those post-mortem dividends must be paid; the charter required it; and the committee decided unanimously that the plan pursued with respect to post-mortem dividends was the proper one; it was the plan pursued for several years, until 1869, when, as I stated on Saturday, an order was given by the president of the company, that in future no dividends should be paid; that order was repeated in official letters to agents and policy holders—probably to *all* the agents—and no post-mortem dividend was paid for some nine months in the year 1869; I considered that rather illegal—to withhold the payment of post-mortem dividends—and that view was sustained, afterward, by the counsel; although the vice-president of the company had prepared a long and learned argument, to the effect that that action was illegal, and that they should not be paid.

By Mr. BLESSING:

Q. Did they commence to pay it after 1869? A. The committee said it should be paid; they were equitably and legally due, and ordered them to be paid.

Q. Did they pay those that were withheld during the nine months?
A. There are some now, I notice by the last report, that are withheld; they were ordered by the company.

By Mr. SEWELL:

Q. What do you mean by the report of the company showing that there are some still withheld? A. The only report of the company.

Q. May it not be that they have not been called upon by the proper persons? A. I suppose, in some cases, that might be the case.

Q. Do you know of any case where the officers refused to pay them? A. I did at that time; I have no knowledge of the company now.

Q. Haven't those been all paid since? A. No, sir.

Q. What cases are they? A. There is one that I know of—the case of Hopkins, in Baltimore, I understand has not been paid.

By Mr. BLESSING:

Q. How much does it amount to? A. Perhaps \$150, or somewhere in that neighborhood.

By Mr. SEWELL:

Q. You don't know of any others? A. I know there are others; I have no knowledge of the names.

Q. And these, you say, are ordered paid? A. They were ordered paid at the time.

Q. Do you know whether Mr. Hopkins, of Baltimore, has ever applied for the amount since that order was given? A. Mr. Hopkins wrote to me before his death, asking me if I would act as the guardian of his children with respect to his insurance; I replied that it would not be proper for me to act as guardian, being an officer of the company; but I would be very glad to do anything that I could; and it was on that case that the question of post-mortem dividends came up particularly.

Q. After the account was settled—evidently from your own testimony there was a great deal of discussion on the subject, and it was left to the committee—after the account was settled, and the order made, did you demand this dividend of Mr. Hopkins? A. Yes, sir; I stated, myself, that it was ordered to be paid.

Q. Did you ask for it afterward? A. Yes, sir; I did.

Q. Were you refused its payment? A. There was no definite answer given to me.

Q. Had you authority to receive the money? A. I should not have assumed the authority; I supposed, from Mr. Hopkins' letter, I would have been fully authorized to receive it.

Q. Did you make the demand as the person who had authority to receive the money? A. I showed Mr. Winston the letter, and asked that it should be paid.

By Mr. BLESSING :

Q. What was Mr. Winston's answer? A. It is a long time ago, and my recollection is not very distinct, except that his answer was not specific.

Q. He didn't pay the post-mortem dividend? A. No, sir; and it was not paid when I left the company.

Q. Were you present during the evidence of Mr. McCulloh before this committee? A. I was present a part of the time, on Saturday.

Q. I will call your attention, then, to the matter of the charges made by Mr. McCulloh, that false entries were made in the books of this company for the purpose of imposing on the policy holders and making them believe that the expenses of the company bore a smaller ratio to the receipts than the fact would warrant; Mr. McCulloh testified that the return of surplus, called dividends, which was applied by the policy holders to the purchase of additional insurance, was treated by the company as if it were cash received in payment of such additional insurance, and that that entry was a fraud upon the policy holders; I ask you, as an expert in life insurance, first, whether, upon principle, such an entry is not in itself absolutely correct, and the only true, correct method of stating it; secondly, whether it is not the custom of all insurance companies to make their entries similarly?

Mr. DARLINGTON :

I only want to correct you or suggest what I think is a correction; the place that I think you refer to is that where he produced the bills; I don't find the word "fraud." [The words "was a fraud," in the question, were changed for the word "deceived."]

WITNESS—My answer is, that the method adopted by the company to represent the total income and the ratio of expenses is calculated to deceive the public; it is not correct; secondly, I know of no other company that adopts the same.

Q. Did you not recommend the adoption of that principle? A.

No, sir; I recommended that the payments, that the dividends used to purchase premiums should be an entry on the books of the company, but I never recommended that they should be used to misrepresent the ratio of expenses.

Q. The entry of the premiums used as a cash receipt was recommended by you, was it not? A. No, sir; I recommended that it should be a book-keeping entry, in order that the transaction might be known such as it was.

Q. Didn't you testify, in the examination before the Superintendent of the Insurance Department, in his examination of the affairs of this company, that this method adopted by the Mutual Life Insurance company was the proper method of keeping the books of the company? A. I testified the item should be entered on the books of the company; should be a book-keeping entry, in order that its nature should be determined; previous to that time, no notice had been taken of the account of dividends; and I thought it was a defect in the system of book-keeping.

Q. You recommended, then, that the dividends which were applied to purchase reinsurance should appear as cash received by the company on its books, didn't you? A. No, sir.

Q. What did you recommend? A. I recommended that it should be an entry by the book-keeper on his books, in order that the transaction might be clearly apparent; the account in that testimony is, by some reason or other, not correct that I gave.

Q. There is an error in the printed book, as to the testimony you gave in the Miller examination? A. My recollection is—

Mr. DARLINGTON :

Don't call it the examination before Mr. Miller; we have the examination of Mr. Miller in another way.

WITNESS—My testimony in that book—I will just read it—I know that my impression—

Mr. DARLINGTON :

Mr. McCulloh has the stenographic notes taken by *this* stenographer.

WITNESS—My impression is that it was not correct in many particulars.

Mr. SEWELL :

It is printed from the stenographic notes; so that, if it is incorrect, the stenographer's notes are incorrect.

By Mr. BLESSING :

Q. You believe that is not a proper report? A. I think it is incorrect in many respects.

Q. Can you point out any defects from it? A. Yes, sir.

Q. Who was the stenographer that took down these remarks? A. I don't recollect the gentleman.

Mr. DARLINGTON :

This gentleman (Mr. Young) took the testimony which was not printed, there having been two separate reports.

WITNESS—I have never had a chance of comparing this, for I have never seen the original notes; but in reading this over, I saw a great many inaccuracies.

Q. Your answers are incorrectly reported? A. Yes, sir; it is incorrect in many particulars.

By Mr. SEWELL :

Q. State the particulars in which your answers are incorrectly reported; because we will have it corrected, if it is incorrect? A. I can hardly do so, without reading them over.

Mr. DARLINGTON :

You will find he was called half a dozen times.

WITNESS—Yes, sir; I was called repeatedly.

Q. I call your attention to pages 88 to 92 in your examination before Mr. Miller.

Mr. Sewell read the testimony as follows :

SHEPPARD HOMANS *recalled, examined by* Mr. Miller :

Q. What has been the custom in the company in regard to including as actual cash receipts the dividends of the preceding year? A. It has been the custom to include them.

Q. The general custom? A. The general custom, since we have been making annual dividends, or within one year thereafter; the first annual dividend was made on the 1st of February, 1867, for the year preceding; previous to that we had made dividends only quinquennially, with the exception of the three years ending the 1st of February, 1866.

Q. That was triennial? A. It was then we were making a change; in 1865 it was decided by the board to make a dividend for the three years ending the first of February, 1866, and annually thereafter.

Q. Since the commencement of the annual dividends, the preceding year's dividend has been included in the actual cash receipts? A. With the possible exception of the first annual dividend; I am

not sure it was then, but, with that exception, it has been included.

Q. Was that subject a matter of discussion among the officers of the company? A. Yes, sir; by the committee and by the superintendent at Albany; the argument was, there was no other way in which we could get the entry in our books of that transaction; the *rationale* is this, we pay over the dividends to the policy holders at one window, and they go to another window and pay them back to us, either for the purchase of additional insurance or for the purpose of part payment of the premium then falling due; and there was no other way, it was thought, we could have a proper book entry of the transactions, except to include them, where I think they legitimately belong, in the premium account; as I said before, the transaction was brought by the president before the insurance committee, and it was discussed and approved by them, and I am quite certain it was approved by Mr. Barnes in writing, but where that writing is I have no recollection; but he certainly did approve of it.

Q. Your own view upon the subject is what? A. My own view is, that it is a proper transaction.

Q. That it is proper? A. Perfectly proper, with the possible qualification that it should be openly expressed, exactly what it means; I think it is only a fair way of taking advantage of the magnificent position this company holds, and if we neglect that advantage it would be greatly detrimental to us, in comparison with the note companies.

Q. Does it, in any way, have the effect to conceal the true ratio of expense to income? A. If it were decided it was not a proper entry, it would have, but by deciding in this case it was a proper entry, then it would not conceal the true ratio, but be the only means of getting at the true ratio; the motive which governs me in approving it, as I do fully, was that a portion of these dividends enter directly into the cash, as so much premium paid, and in order to get a complete entry, the balance of the dividend, which is, in reality, paid over, that is, not in reality, but in effect, paid over to the policy holder, is returned to us and applied to the purchase of additional insurance; and nothing can buy additional insurance, or insurance of any kind, except premiums, and that is a proper entry as I conceive it.

Q. What was the effect, with regard to the amount of dividend which was already carried in as cash received? A. The exact amount, as nearly as we could get at it, after deducting the amount which had already gone into cash receipts as direct payment for premiums.

Q. In 1867 what was the dividend amount; have you any statement showing it? A. Yes, sir; we have statements fully showing it.

Q. You don't mean to say that the whole dividend for the preceding year was carried into the cash receipts of the next year? A. Not in that way; part of it had already been received, as part payment of premiums, and went in as premium; the other portion, that is the balance, was applied to the purchase of reversionary additions, and the addition was carried in by a single entry as so much cash in payment, paid by additions to premium account.

By Mr. HAND:

Q. By part of it you don't mean that if a dividend goes to one person, that the same person drew a check to other persons, but that you made the transfer and regarded it as if he had received the dividend in a check, taken it away, and brought back the same amount?

A. Precisely, sir; and the whole of the dividend was divided into two parts; one portion of it was received by the company as so much cash in payment of the current premium.

By Mr. MILLER:

Q. There are no premiums paid out in cash which are not reinvested in insurance in some way? A. No, sir; as far as I know; there may be possibly a few exceptions where the dividends are over 100 per cent, but they are few in number, and would not affect the answer to your question; I do not know a single instance.

Q. Why should it be divided at all; why is not the whole dividend carried into the account? A. It is only divided because some persons use their dividends to pay premiums; it is not divided by us at all; and others use it to buy insurance.

By Mr. McCULLOH:

Q. The object of this is, as I understand it, to put the company in as favorable a position as possible in comparison with the note companies, who treat their notes as cash? A. That is one object; and another object, both of which governed me in my approval of it, was to make a correct entry in the books.

Q. As a matter of book-keeping? A. Yes, sir.

Q. Is not the effect of that, the actual effect, to decrease the apparent ratio of expense as far as the public or the policy holders have been informed? A. Certainly; the effect is to diminish the ratio of expense, and so intended.

Q. It is intended for the purpose of making your expenses appear more favorable than they would have done if this had been in any other shape, and to keep your books straight? A. Certainly; that was one object; to make as favorable an appearance as possible.

Q. Have you made your statement for this year in the same way? A. You mean for 1869; it has been made in the same way for the last four or five years.

Q. That is the statement which will now go in to Mr. Miller? A. Yes, sir; with the exception that in our statement to the insurance department, this year, we have separated these two items and stated distinctly what they were.

Q. So that a policy holder, in taking your statement for this year, can form his own opinion as to whether that entry was correct, and could make his own calculation of your ratio of expense? A. Certainly.

Q. Which he could not do before? A. He would not have means of doing it correctly unless he made an estimate of what part of the amount divided was applied to the purchase of reversionary insurance.

Q. There was nothing in your statement to indicate to him that any such thing was done? A. I am not prepared to say that; I don't think any means were taken to conceal it.

Q. I don't put it in that shape; I ask whether a policy holder taking up your statement would have been able by means of the provisions of that statement to have ascertained what was the actual cash money received, and what were these additions treated as cash?

A. The items were never separated in the public statement.

Q. With regard to the dividends of 1867 and 1868—were those dividends made by raising your rate of interest above the four per cent, at which you had been accustomed to calculate it? A. No, sir.

Q. Were they made by reducing the cash value of the accumulated additions? A. No, sir.

Q. I understand that statements have been given out upon policies, showing the amount applicable to the payment of premiums, and that when afterward these statements have been brought to the company, the policy holders have been told that they could only use seventy-five per cent of the amount which these statements had credited to them? A. There is no foundation for any such statement as that, that I know of.

Q. You know of no such thing ever having been done? A. No, sir; we have uniformly used the basis of four per cent interest.

Q. I mean with regard to this cutting down of these statements? A. There is no truth in it whatever, as far as I know.

Q. Is there anything in that report of your testimony that is erroneous? A. That appears to be correct, as far as I can recollect.

Q. To the best of your memory? A. Yes, sir.

Q. Didn't you, correcting your memory by this testimony, write a letter recommending this method of making these entries? A. I should like, by means of comparison, to have my answer read over again there; I see now there are some things which I had overlooked and forgotten.

Mr. Homans desires to revise his answer to the question commencing on page 46 of the record of this day, by striking out the words "it is not correct," so that the answer will read, "My answer is, that the method adopted by the company to represent the total income and the ratio of expenses is calculated to deceive the public. Secondly, I know of no other company that adopts the same."

WITNESS *continues*—My recommendation to the company was to make an entry of those dividends paid to purchase additional insurance, but I have never recommended that the ratio of expenses should be improperly stated, as, in my judgment, they are improperly stated in the reports of the company.

Q. Now as to those dividends; the whole sum of the dividends appears in the accounts of the company, and in its statements, as a

total sum paid out by the company as its dividends, does it not?

A. Yes, sir. •

Q. The dividend, as I understand it, is never paid in cash, but is available to the assured in one of two ways; either by applying it in payment of the premium, or by leaving it all with the company and purchasing what is called a reversional insurance, which is a sum added to his policy, payable with his policy, either at his death, or with the maturity of the policy, otherwise; now, is it not the correct method of keeping the books to enter these dividends, when they have been paid in this manner, as premiums received? A. They should undoubtedly be placed among the entries of the company; but to state they are cash receipts, without stating the nature of the transaction, is calculated, whether so intended or not—

Q. That is not an answer to my question; my question is, to use your own language, can anything buy insurance but premiums, and if these dividends are used as premiums, is it not correct that they should appear among the premiums of the company as premiums received? A. They should certainly be separated from the cash receipts of the company.

Q. But should they not appear as premiums received? A. Not necessarily.

Q. I ask you this question, and the stenographer will take it: in 1870, I believe it was, I asked you this—it is the latter part of the question by me on page ninety-two—"Is it not, speaking as an accountant, the correct method of keeping books, to enter these dividends, when they have been applied in this manner (that is, to purchase insurance), as premiums received?" you answered that question then, "I think so;" do you mean the committee to understand that you do not think so now? A. No; I think it is—

Q. I asked you then, "Is there any other way of doing it correctly?" And you answered "I think not, sir; that is my testimony already; but I made an exception in one case." Is that still your testimony and your opinion? A. Now, that is exactly what I think; it is proper to make it a book-keeping entry, and as these dividends are used to buy additional insurance, it is proper to call them premiums; but my point is, and there is the exception that I name there, and which I still think, that it is improper to state that the ratio of actual expenses to actual receipts is what was stated in the reports of the company.

Q. It is always made use of by agents and others, is it not, that

the ratio of expenses of the company were smaller ; it was always a method of urging people to take policies in this company, was it not ? A. The ratio of expenses of the Mutual Life are small, and there is no occasion to make them smaller than they really are.

Q. When you testified here that one of the reasons for making these entries was that it made the expense smaller—

Mr. DARLINGTON :

On the 91st page, "It is intended for the purpose of making your expenses more favorable?" It is that part that you read to him.

Mr. SEWELL :

The question was this : "Is not the effect of that, the actual effect, to decrease the apparent ratio of expenses as far as the public or the policy holders have been informed ? A. Certainly ; the effect is to diminish the ratio of expense, and so intended."

WITNESS—Yes, sir.

Q. It was so intended, was not it ? A. Yes ; and when properly explained to the public, there is no impropriety in it ; on the contrary, it ought to be done.

Q. You then thought it was right, and you think so still ?

Mr. DARLINGTON :

With that qualification.

WITNESS—With that qualification.

By Mr. SEWELL :

Q. What do you mean in your answer to the question on page 89 in this examination, when you said : "I think it is only a fair way of taking advantage of the magnificent position this company holds, and if we neglect that advantage it would be greatly detrimental to us, in comparison with the note companies?"

A. I think it should be done, but I think it should be explained properly ; it is a means of showing what immense dividends the company has been paying and the large surplus they have, by reason of the economy in the management and the small mortality.

Q. Didn't you mean to take advantage of the fact that it made the ratio of expenses smaller ? A. Not at all.

Q. You didn't mean that ? A. No, sir ; I did not ; I said distinctly here in that statement that it ought to be properly explained to the public, so that there should be no question about it ; and it was pro-

perly explained in the report of the twenty-seven years' experience of the company, made in October of last year; that is the way it should have been; it is properly explained there in that lithograph.

Mr. SEWELL:

Report of the Mutual Life Insurance Company produced by the witness.

WITNESS—Don't state it that way.

[Report of the Mutual Life Insurance Company, dated 1872, last year, is produced and handed to the witness.]

WITNESS—This is a statement of the Mutual Life Insurance Company of the business of that company for twenty-eight years and eleven months. An entry of the receipts are stated as follows:

"Premiums received in cash..... \$64,677,770 23
Premiums received, surrender of dividends..... 23,152,560 01."

Now, there it is properly stated. The dividends are used to purchase additional insurance, and in order that the Mutual Life should take the maximum benefit of their position, it is very proper to include it in that way; but to put it in as a receipt in cash, and then compare it with the statement of the cash expenses, has a tendency to deceive the public in regard to the ratio of expenses. In other words, the statement that the actual expenses, in comparison with the actual ratio of receipts for the year 1872, was 6.98 of one per cent, is, in my judgment, calculated to deceive.

Q. Didn't you, very often, while you were in the company, prepare statements for publication, in which you made use of these very arguments—that the ratio of expenses were small, produced by thus calculating these dividends as premiums? **A.** I may have done so, but at the same time I stated I considered the proper method was to state specifically that a part of that premium income was produced by the surrender of dividends.

Q. While you were in the company, did you ever see any statement in which the ratio of dividends was given and the method complained of? **A.** Yes, sir; I have prepared the statement myself in this way.

Q. Did you ever protest against it? **A.** No; I don't think I have ever objected; I protested on very frequent occasions and found that protests were of no avail.

Q. Not on this subject? **A.** I don't recollect making a protest on this subject, but, Mr. Sewell, I am on record there that the proper

method of stating the receipts would be to state specifically that that portion of the receipts was for surrender dividends, and was not actually a cash receipt; and I am on record also in this testimony, and on the books of the company, that, in my judgment, the ratio so divided was not correct.

Q. Don't you know that the statement which you now hold in your hand, and which you say is correct, that all the statements made to the Insurance Department were made in that way? A. No, sir; I do not.

Q. Were not all the statements that were made to the Insurance Department, when you were there, made dividing those items in the manner you speak of? A. All of them were not.

Q. From what time? A. I have no recollection; my impression is that they were not divided.

Q. Do you know whether a time came when they were divided, and what the practice of the company is now? A. No; I have no recollection of it; *that* could easily be ascertained by reference to the Department.

Q. Look at page 91 of your testimony, and refresh your memory; that was in 1869 you separated the items? A. Yes, sir.

Q. Didn't you in 1870? A. I don't recollect, I am sure.

Q. You don't recollect what the course was afterward? A. No, sir; my recollection is very distinct, that in preparing the statements, the amounts were invariably separated.

Q. Do you recollect, in 1870, whether they were separated? A. In preparing the statements, they were, invariably, in all the years.

Q. In the statements which went to the Department? A. No; in preparing my statement of the receipts and payments of the company.

Q. You have no memory with respect to the statement that went to the Department? A. I have never prepared the statements; at least it was not my custom—hold on a moment—I have prepared some of the statements, but it was not my custom invariably to prepare them.

Q. Were they not prepared in your department; the actuary's department? A. No, sir; they were prepared in the book-keeper's department; the bond and mortgage department.

Q. Were you not obliged to audit the statement? A. Yes, sir.

Q. Did you not audit the statement of 1870? A. For the year ending December 31st, 1870?

Q. Yes? A. My impression is that I did not.

Q. You do not remember about the year ending December 31st, 1871? A. It was either in 1870 or 1871 that my duties were changed, if my recollection is right; and I was not afterward required to audit—although I am not sure of that; they were changed before I left the company; but when, I could only tell by reference to the books.

Q. Coming back to the use of proxies—you gave your opinion that it was necessary, for the protection of the persons in the insurance companies, that proxies should be limited to one year; what is your experience regarding the number of persons who vote at elections in mutual life insurance companies in New York; or have you any knowledge of it? A. Almost the only election which I ever attended, and the only one to my recollection, with the exception of 1869, was one in which there were just seven votes cast.

Q. In what company? A. The Mutual Life Insurance Company.

Q. How many voters were then members of the company—about? A. There were a great many thousand policies, of course; probably thirty thousand.

Q. In 1869, when these proxies were used which you speak of, your name was on the opposition ticket as a director, was it? A. Yes, sir.

Q. Do you remember how many votes were cast for that ticket? A. My impression was that there were some four hundred votes cast in person at that time.

Q. Altogether, you mean? A. I have forgotten; I don't know whether it was cast for that ticket.

By Mr. McCURDY:

Q. Altogether? A. Altogether; yes, sir. .

By Mr. SEWELL:

Q. Do you remember whether or not the personal votes cast would have elected the opposition ticket? A. I had no means of knowing that—not being an inspector of elections, or being present.

Q. Did you hear the result of the election declared? A. My impression is that the personal votes cast—the votes cast in person—were larger for the opposition than for the regular ticket; I may be

in error ; I have no positive knowledge about that ; I know there was a much larger vote cast for the opposition ticket at that time than I had ever heard of being cast before—if there ever had been an opposition ticket before.

Q. Was there ever an opposition ticket before ? A. No—

Mr. DARLINGTON :

He has already said he was never present at any election before.

WITNESS—I am not aware that there was.

Q. Is not the Mutual Life Insurance Company the only one in New York which is a purely mutual company ? A. No, sir.

Q. State another ? A. The New York Life Insurance Company.

Q. Have they no capital stock ? A. No capital stock.

By Mr. BLESSING :

Q. You stated that of the number of personal votes cast at that election a majority was in favor of the opposition ticket ? A. The opposition vote at that time, in person, was very large—so large that proxies were used at that time.

Q. Who were the proxies held by ? A. The president and vice-president.

Q. They overbalanced the amount of personal votes ? A. Yes, sir.

Mr. DARLINGTON :

I think that that personal vote at that election, so far as the information I have goes, exceeded the opposition.

By Mr. SEWELL :

Q. Don't you remember that the opposition ticket got just ninety-nine personal votes at that election ? A. No, sir ; one member of the opposition, I recollect, got a great many more than that.

Q. Who was that ? A. Myself.

Q. How many votes did you get ? A. I don't know ; I think it was 400.

Q. That is a lamentable mistake ? A. I know it was over 100 ; it ran into the hundreds.

By Mr. BLESSING :

Q. And you had an opportunity of getting a correct list of the number of votes cast there ? A. I have never had such an oppor-

tunity, but it was given, I believe, to the inspectors of election, of which Mr. Sewell was one.

Q. You didn't get a copy of that? A. No, sir; I have never seen a copy.

Q. Did you apply for one? A. No.

By Mr. SEWELL:

Q. Haven't you seen certificates of the inspectors of election entered upon the minute books of the company, certifying the number of votes cast? A. My recollection is that such were on the books, and I probably saw them, and perhaps they are entered every year, but I was not in the habit of reading the minutes of the board always; sometimes I saw them.

Q. In other companies the directors are elected by the stockholders almost entirely, are they not? A. No, sir; I think in the majority of companies the policy holders have a vote, or votes.

Q. Do they ever exercise the right of voting, to your knowledge? A. Yes, sir.

Q. In what companies do the policy holders exercise the right of voting, where it is a stock company? A. They do so in the Guardian Life Insurance Company, and the *United States* Life Insurance Company.

Q. To what extent do they vote; how many voters generally are there? A. I have never been present at any election in any insurance company but one, and that was the *Widows and Orphans*; I was an inspector of election in that company once, and the policy holders voted there as well as stockholders.

Q. To what extent? A. I really cannot say.

Q. There are some companies in the city where the policy holders have no vote at all? A. Yes, sir.

Q. It is managed entirely by the stockholders? A. Yes, sir.

Q. What companies are they? A. I could not state without a list of them.

Q. How about the *Equitable*; is that so? A. The *Equitable* has a provision in which the voting shall be by the stockholders, and in which the policy holders may have the right of voting if it is accorded to them.

Q. If the directors accord it to them? A. Yes, sir.

Q. Do you know whether the directors have ever accorded the right? A. I have never heard that they did; but I have no positive knowledge.

Q. You testified in your direct examination that you were ordered to audit an account by Mr. Winston, and you refused to do so ; do you not remember, upon that occasion, that Mr. Winston told you that it was your duty, and your privilege, to address a communication to the board upon any matter of difference between you and him ? A. No, sir.

Q. Or language to that effect ? A. No, sir.

Q. He never told you so ? A. No, sir.

Q. Upon any of these occasions when you had these differences ? A. I have no recollection of its ever being told to me ; certainly it was not on that occasion.

Q. In your direct examination you testified that you had been informed since, that if you hadn't resigned the question would have been put to a vote, and there were enough parties there, in adherence to Mr. Winston, who would vote it ; and you testified, a little further down, that your informant was the vice-president of the company—do you mean Mr. McCurdy ? A. I do.

Q. Please state upon what occasion Mr. McCurdy gave you that information ? A. The occasion was in your office.

Q. At a meeting between you and Mr. McCurdy ? A. I did not mean to convey the idea that that was a formal statement, that such would have been the fact ; it may have been an opinion of Mr. McCurdy's.

Q. Was not that a confidential and private interview between Mr. McCurdy and yourself ? A. I didn't consider it so.

Q. Was the statement made casually, in a conversation ? A. The statement was made casually ; I so intended to state it.

Q. You did not consider that interview, then, in any way confidential or private ? A. The private interview—

Q. I mean by "private," confidential, in which the results of it were not to be disclosed ; we had the impression—but I only want to know your impression ? A. It was a private interview, but not necessarily confidential.

Q. You testified, in your direct examination, that some change was made in the management of the company, with respect to dividends, and that there was no reason for the change, except to shield Mr. Winston from the consequences of his illegal actions ; to what illegal actions of Mr. Winston did you refer to ; which was ? A. I referred particularly, then, to his order, which I considered illegal, directing that in future no post-mortem dividends should in any case be paid.

Q. What was the action of the company, changing the system of making dividends, which would shield him from the consequence of that action?

Mr. DARLINGTON :

In the way he brought it in, he gave the reason right before it; he had better look at the testimony.

WITNESS.—I can state it; the point that I had reference to was this, that this illegal order had been given, both in official letters to the general agents and agents, and to individual policy holders, that in future no post-mortem dividends should be paid; and they were withheld for the period of some nine months; and I was not aware of the order, and was not aware of the fact until I was made aware of it by a letter from the president of the *New England Life Insurance Company*, as I have stated; there had been no discussion of the principles upon which the post-mortem dividends had been made for several years; they had been settled, and had been calculated in accordance with the instructions of the insurance committee, who had charge of those matters; I considered the order, directing that in future they should not be paid in any case, to be illegal; and the fact that they were withheld, rendered the statement incorrect, and that was one of the reasons, and perhaps the principal reason why, as an auditor of the company, I felt it my duty to withhold my approval of it; and I considered then, and I consider now, that in ordering me to audit that account, which I didn't approve, was an attempt at coercion; and although I knew the probable consequences of it, yet I was determined not to audit that account, and declined to do it; and after having shown that the order was illegal, and the post-mortem dividends should be paid, then, and not until then, the question of the method of dividing the surplus was brought up; that is the meaning of my direct testimony there.

Q. A change was made, then, in the method of dividing the surplus, was there not? A. No, sir; not necessarily; a change was subsequently made.

Q. Were not these post-mortem dividends, commonly so called; were they not in fact ante-mortem dividends? A. No, sir; not at all.

Q. Were they the post-mortem dividends which were made previous to the time when you changed the method of dividing the surplus into the contribution plan? A. No, sir.

Q. They differed, then, from the post-mortem dividends which were spoken of in the charter, and to which you have referred? A. Not at all; when we made a change in the system of dividing the surplus—as I have stated before, and endeavored to state it fully, how it would apply—post-mortem dividends were made a subject of discussion, and referred with power to a special committee, and they approved the method of awarding these post-mortem dividends, which had been followed from the time of the adoption of the contribution plan to the year 1869; and in that time—four or five years afterward—the principle had been adopted, and had been applied, and had been in practice ever since, and then the order was given to withhold them in future.

Q. Were not those dividends declared before the death of the party payable upon the anniversary of his policy? A. All the dividends of the company were made payable on the anniversary of the policy, and that point—

Q. That dividend was payable upon the anniversary of the policy? A. Yes, sir.

Q. And that was declared? A. Yes, sir.

Q. Now, if a man died after the anniversary of his policy, would there be any post-mortem dividends? A. Certainly.

Q. In case he died after the first day of February, and before the anniversary of his policy? A. Then having received his full equity, his full share of the surplus, there was nothing more to be given him; and that very point was brought before the committee, who had the power, as a possible defect or an obstacle, and that is on the minutes of the committee.

Q. To what did you refer, in your testimony, when you said “the surplus was divided in the most absurd way that has ever been done by any company in the world; to my knowledge, some \$800,000 was given in excess to persons who were not entitled to it?” A. I mean to say that upon being criticised by the actuary of the company, the president and vice-president thought, first, to condemn the method of dividing the surplus, as an after-thought; that they insisted on a change; there was one change of making the fiscal year end on the 31st of December, instead of on the 31st of January; but the principal change was in adopting a new method of dividing the surplus; if the committee would like to hear it, I will relate it as briefly as possible.

The CHAIRMAN :

We would like to hear it.

WITNESS.—The facts are these : Mr. McCurdy prepared a long statement, by which he endeavored to explain that our dividend system was wrong ; that was referred to the counsel of the company, and they recommended a change in it ; upon a point which had been decided four or five years previously by the counsel of the company, their opinions were in direct conflict ; the counsel of 1865 and the counsel of 1869 were in direct conflict.

Q. Who were they ? A. Judge Bradford, William Betts and Lucius Robinson were the counsel in 1865.

Q. And they agreed in their statement then ? A. Yes, sir.

Q. And who were the counsel afterward ? A. Judge Davies, Lucius Robinson and William Betts were the counsel in 1869 ; during the discussion of the principle which would govern the distribution of surplus, I stated that I was perfectly willing, as it was my duty, to divide the surplus as I was directed by the trustees of the company ; but that I felt it due to myself to say that what I had done up to that time was not only right and proper itself, but in strict accordance with the instructions which I had received ; whereupon one of my friends, as I supposed to help me out, said in the committee : " Suppose we had that question decided by competent experts, whether Mr. Homans had done what was right and proper in itself, and in accordance with the instructions of the committee ; " on his suggestion Professors Bartlett and Church, of West Point, were appointed a committee to examine those facts, whether what had been done was right in itself, and in accordance with instructions ; they came down, and I was present when Professor Bartlett came into the president's room, and he said : " Mr. Winston, I have, after a careful examination, come to the conclusion that what Mr. Homans has done was right in itself, and in accordance with his instructions ; " Mr. Winston said : " That is not the point, Professor Bartlett ; we have determined to make a change, and we wish you to devise a method of dividing surplus different from that which we have been practicing ; " and although outside of the resolution entirely, and without authority, Professor Bartlett did prepare a method of dividing surplus, and in the course of a few days it was brought down and submitted to the insurance committee ; I was present, and a motion was made by Mr. Wadsworth that the method of Professors Bartlett and Church for the distribution of surplus be

adopted; Mr. William Moore, a member of the committee, objected; he said it would be better that the professors and the actuaries of the company should confer together, and unite in a recommendation as to what would be the better plan of dividing surplus, but he was overruled, and Mr. Wadsworth's motion was adopted; the plan proposed by Messrs. Bartlett and Church was adopted for the distribution of surplus, and the actuary was instructed to carry it out; I listened to the explanations of the professors and studied it over very carefully for some two or three weeks, made some objections which were not considered of any consequence, and finally, when I became convinced that the method was not only inaccurate, but actually unsafe for adoption for use, in order that I might be right on the record, I addressed a letter to Mr. Winston stating that the method was incomplete, inaccurate and unsafe for use by the company.

Q. You mean this method devised by Professors Bartlett and Church, and adopted by the committee? A. I do.

Q. Who was Professor Bartlett at this time? A. He was professor at West Point Military Academy; my letter stating that the plan of the professors was not correct was sent to them; they telegraphed within a day or two that they were all right, and the committee met and ordered me to go ahead, and I spent some six weeks more in making the necessary calculations, more and more convinced every day that the method was incorrect and unsafe, when suddenly a letter came from the professors to the president, in which they stated that after a more careful investigation—I quote now their words—"our method is not as correct as we had anticipated;" and they urged that another method, which they then submitted, should be substituted for the one which had been adopted by the committee; fearing that that would not appear, I went to two of the trustees and asked that that letter should be read; at the meeting of the board, which took place the next day, Mr. McCurdy, the vice-president, who is also, *ex-officio*, the secretary of the company, in reading the minutes, had this communication from the professors, and stated that it was mathematical hieroglyphics, and probably not necessary to be read; and, unless otherwise wished, he should pass it over; when my friend, whom I had asked that it should be read, asked Mr. McCurdy to read it; and it was read, and the statement was read, also, that the plan was not as correct as they had thought it was; then, I understand, Mr. William E. Dodge got up and stated that here was a difference of opinion—

the professors on the one hand—men of national reputation—said that it was all right; and the actuary of the company, who had been with them fifteen years, and in whom they had every confidence, said it was unsafe and incorrect; and he insisted that some referees—experts—should be appointed, who would see which was right; that resolution was carried; three experts, consisting of Mr. Justice Bradley of the Supreme Court of the United States, Professor Elizur Wright of Boston, and Professor Newtown of Yale College, were appointed referees to decide which was right; after a thorough investigation they decided that the method proposed by the professors was incorrect, and that in the ascertainment of surplus it was best to leave the matters to the actuary of the company; they suggested a slight modification of my own formula—of my own method—to suit the altered circumstances occasioned by the decision of the counsel, which was that every man should get his surplus on the first day of January; that was the ruling of the counsel; I proceeded to carry out and calculate the dividends, and divide the surplus in accordance with the decision of the referees and the action of the trustees, and reported the results; when the results were reported, Mr. Winston and the insurance committee insisted on altering them, and in doing so they made a distribution of surplus which I characterized in my testimony of Saturday as being the most absurd, the most unjust, that had ever been made by any company within my knowledge; in doing so, according to my judgment, they violated the charter of the company, which required that the surplus should be divided equitably among the members; it was a mistake which they have since endeavored to rectify at an expense, or at an outlay of some \$2,000,000; that is the explanation of the extra dividend made a few months ago; \$2,000,000 were appropriated to correct the mistake which was made by the president of the company, and against which my protest is on record.

By Mr. ABBOTT:

Q. Was this a loss of \$2,000,000? A. No, sir; there was no loss at all.

By Mr. SEWELL:

Q. How much surplus was there to divide, this time, when you had this difficulty about how it should be divided? A. The surplus to divide, under the ruling of the counsel, was \$1,200,000.

Q. How much did your first figures foot up, when you returned your distribution of surplus? A. That was the entire amount of surplus applicable for distribution on the first day of January.

Q. How much money did the board direct the actuary to distribute as surplus? A. At a sum not exceeding \$2,000,000, before the sum was ascertained.

Q. How much does that estimate foot up? A. Twelve hundred and odd thousand dollars, I think it was.

Q. How much surplus was over? A. Nothing.

Q. No more surplus? A. No more surplus to be divided.

Q. Was it then known that there was to be no more surplus? A. There was no undistributed surplus, Mr. McCurdy; there was a surplus unearned and immature, which, under the ruling of the counsel, could not be distributed.

Q. How much did that amount to? A. About \$1,000,000.

By Mr. McCURDY:

Q. Didn't you report that as surplus to be carried over to the next year? A. No; it was not surplus; it would be surplus before premiums would be paid by individuals; but, by the express ruling of counsel, it could not be touched.

Q. Didn't you agree to distribute fifty per cent of that? A. No, sir.

Q. Didn't you say you didn't understand how it arose at the time? A. No, sir; I understood it fully.

By Mr. SEWELL:

Q. You were ordered to make an addition to your dividend of eighty per cent? A. Yes, sir.

Q. What did you say when you were ordered to make that addition? A. My expression was that it would derange the equities of policy holders; it would violate the instructions of the trustees and the recommendations of the referees, and make the distribution absurd; my opinion to that effect is on record in the books of the company.

Q. Did you not at that time agree with the committee that a certain addition might be made to the amount distributed; twenty or thirty per cent? A. I did not.

Q. Of any sum? A. I did not; I did say that if any percentage was added a smaller per centage would be a lesser evil than a larger;

but any alteration would be a violation of the instructions of the trustees and the recommendations of the referees.

Q. What time in the year was this? A. That had got to be along in the month of July, I think.

Q. And it was with respect to a dividend that ought to have been made on the previous February or January, was it not? A. Yes, sir.

Q. A great many complaints had been made about the dividends from agents and others? A. A great many; great dissatisfaction existed.

Q. It was of the utmost importance that something should be done in the way of a dividend at once? A. Yes, sir.

Q. Did you make any proposition to make a new calculation at this time—in June or July—to divide a larger sum than the \$1,200,000? A. I did not; the distribution was the result—the arithmetical result—of the principles and facts laid down by the trustees and referees; and there could be but one result to it.

Q. This subject of bonuses was testified to by Mr. McCulloh; you know all about that subject, don't you? A. Yes, sir.

Q. Do you know of anything wrong or improper about that matter of giving a bonus to officers? A. I considered the placing of bonuses to officers to the account of dividends to have been wrong; and stated so at the time.

Q. To whom did you state it at the time? A. Mr. Wadsworth.

Q. Did you ever state it to any of the officers of the company? A. I have no recollection.

Q. Did you ever make any effort to have the charge of bonuses, which was made to the dividend account, taken from the dividend account and put to expense? A. I knew nothing of it until after it was done.

Q. When did you first know of it? A. Toward the end of the first three months after it had been done; when I came to audit it.

Q. It was done more than once? A. Yes, sir.

Q. It was done for three years? A. I have forgotten how many years.

Q. You saw it every year? A. I did.

Q. Did you, after the first entry was made, refuse to audit it? A. No, sir; I did not refuse to audit it at any time.

Q. You didn't think it was wrong? A. I did; yes, sir.

Q. Why, if you thought so, didn't you refuse to audit it? A.

Because I was advised, in consulting with several—among others, Mr. Wadsworth—I was advised to audit the payments of money as they were stated on the books of the company; and if they were stated there, my duty ended; it was not my function to criticise the entries or criticise the action of the president and other officers.

Q. When did you change your views as to your duties in that respect? A. I never have.

Q. You did refuse to audit? A. I know, when what I considered was erroneous—

Q. But they were entered on the books of the company? A. I know; but these were incorrect, obviously incorrect.

Q. The payment of six years' taxes was entered on the books of the company? A. Yes, sir.

Q. In what does that differ, in principle, from the erroneous charge of bonuses to dividend account? A. It was partly in consequence of my asking for instructions and advice in regard to that, that I came to the conclusion that my duty was to state that the items were as stated in the report; and not to criticise the entries themselves.

Q. You made no comment at all, then, about this charge of bonuses to dividend account; and yet you knew it was wrong? A. I did make a comment.

Q. I mean to say you made no public comment to the officers, or objection to the auditing of the account? A. I spoke of it very freely at the time; I have no recollection of speaking to Mr. McCurdy; I don't know that he was there at the time.

Q. Did you ever speak to Mr. Winston about it? A. I don't know.

Q. Do you know who put it into the account? A. I do not; it was done by Mr. Winston, I think; that is my recollection.

Q. Have you any recollection on the subject? A. Yes, sir.

Q. What is your recollection? A. It was put there by order of Mr. Winston.

Q. Don't you know that it was put there after discussion by a committee, and report upon the subject by a committee? A. I am not aware of it.

Q. I call your attention to pages 96 and 97 of the printed book, to this language, used in the report on page 95: "Some of the reasons of this increase may thus be stated briefly:

"1st. It extends the same principle of compensation as the company has adopted in employing all its agents. For ten years it has

declined to pay any salaries to its agents, but has given them, instead, a commission on the business they have brought to the office. These commissions last year were \$125,000. Our large business has been built up in this way.

“2d. It incites to greater efficiency and economy as a rule. Few are governed by motives so high and controlling that the spur of interest will not quicken their efforts in duty.

“3d. It is a recognized principle among practical men, that business is most successfully conducted when the managing and executive departments are in the hands of those who are compensated directly from the business of the profits itself.

“4th. It promotes fidelity and contentment in such managing and executive officers; they have something to look for as a reward of extraordinary ability or exertion, beyond a bare fixed compensation; they would not then listen to offers that are now constantly being made to our competent and experienced officers to join other rival companies and enterprises.

“5th. Our officers are, or ought to be, men of such ability and character as to command positions where, with proper application, they could provide a competency for their families, which cannot be done, as a rule, upon the salaries paid by this company.

“6th. The commission proposed is a mere fraction of the profits made and cared for by the office for the policy holders, diminishing, by a scarcely perceptible amount, the profit allotted to each, and a small compensation only for the care of these profits after they have been set apart to these policy holders after each dividend by the company.

“7th. Our most prosperous marine and fire insurance companies, and some of our life companies, have adopted this principle of compensation with most favorable results; and it is not known that any who have adopted it have ever abandoned it.

“8th. Bank presidents and cashiers can and do hold many lucrative trusts and offices, as agents for other banks, railroad companies, and for other States, etc.; while private operations of a profitable character are constantly brought to their notice, and in which they often participate, greatly to their advantage; the officers of this company hold no such agencies or positions, as their whole time and attention are claimed and demanded to carry on successfully the largest moneyed corporation in this country, which may be made, if properly conducted, the largest in the world, before the close of this century.

"But viewing this subject more at large, and in its broader relations, it would seem to be the part of wisdom to secure, not only the entire service, but the greatest attachment of our officers to the prosperity and the interests of the company. There should be no division of time, or of labor or attention. Take the actuary for example; he should never be placed in a conflict of interests, but always be enabled to feel that his lot is cast here with us; and that no offers whatever tempting, can detach him from his post. To fill with success and ability the offices of this company, requires the possession of faculties which, in another sphere, would command large compensation. There can be no reason why an officer should be limited to a mere support, and be cut off from the hope which animates the exertions and labors of every man to accumulate something to leave his wife and children.

"The committee have, for these reasons, adopted the rule of giving to the officers a rate per cent of the dividends, the charge instead of falling on expense account, being placed upon the profits of the company, and varying according to their amount.

"The committee have had in view, in recommending these allowances, the past history of the company, its great success, and the labor and services of those who have conducted its affairs; and they feel that much is due to the gentlemen who have, by their fidelity and ability, conducted to this result.

"In making this recommendation, the committee deem it but reasonable and proper for the board to forbid any agency for policies by officers in the employment of the company.

"In respect to the actuary and the examining physicians, the board is entitled, in the judgment of the committee, to their constant daily service, and to all their experience. The latter should, at his early convenience, prepare a record, containing in full all rules for practical guidance in the examining department; and other information respecting the class of service in his charge. The former should also prepare a similar record of formulas, mathematical processes, and the principles upon which various calculations are made, as well as in the administration of the ordinary business of the company, as an ascertainment and distribution of dividends. These should be the property of the company, and accessible to the president and the board. It is also of vast importance that the actuary should be constantly training persons in his department to the comprehension and understanding of the system of life insurance, and the mathematical rules involved in our tables, so there may be always a person, in case

of sickness or other contingency, competent to administer that department.

"All which is respectfully submitted.

(Signed.)

A. W. BRADFORD.

T. GREEN PIERSON.

JOHN P. YELVERTON.

"NEW YORK, *June 6, 1865.*"

Q. Was it not in consequence of that report, that that charge was made? A. I have seen that report before, but I have never noticed that suggestion before.

Q. I will show you that you have, by turning the page over, and calling your attention to page 98; there you were asked by Mr. McCulloh:

"Q. That was a per centage on the salaries? A. Yes, sir.

"Q. When these bonuses were paid, they were charged to dividends to the policy holders? A. They were, sir.

"Q. Charged to the account of the policy holders' dividends, were they not? A. Yes, sir; I was unaware of the reason or authority for that until this moment; it never occurred to me before; but it seems to be in the report of the committee that the board authorized that." A. I stand corrected; I had forgotten it.

Q. You say *there*, it is called to your attention in 1870? A. Yes, sir; I explain that by saying I have not read this since it was taken; I had forgotten it; it was authorized by the committee.

Q. I want to know if you did not, at the time, entirely approve of this report of the committee on the subject of bonuses, and of the principle of giving out of the dividends of the company a bonus to the officers? A. I don't know that I can say I approve of it.

Q. Where should it come from; it must come out of the profits? A. In one respect it would come out of the profits, as any expenses must come out of the profits; I will say this, that I applied for an increase of salary, which I thought I was entitled to, and it was given to me; and given me in this form; and I think the principle of compensating officers of large corporations, in part, by a fixed salary, and in part by a per centage on the results, beneficial result, whether profits or surplus, or whatever they are called, is a correct one; I had no scruples, Mr. Chairman, of taking my share of that bonus, feeling that it was fully earned by devoting the best years of my life to the service of the Mutual Life Insurance Company.

Mr. DARLINGTON :

Get in what he does not approve of, namely, the peculiar method of charging it.

WITNESS—I would like to modify that; I ought not to say now that I disapprove of it, as it has been approved by the committee of the board; my own judgment would be that it should appear in expense account, just as salaries should; but it was authorized by a committee of the board, and approved by the board, a fact which I had forgotten.

Q. Then, it was the duty of the president and all other officers of the company to carry it out, was it not; didn't you consider it your duty to carry out the instructions of the board? A. Certainly.

Q. Wasn't it the duty of Mr. Winston, and the vice-president also, to carry out the instructions which it was your duty to carry out, in their spheres? A. I should not like to say "yes" without modification of that fact; if I had been a trustee of the company, and anything had occurred which I thought was wrong, I should certainly, at least, have stated my reasons or objections.

Q. But, as an officer of the company, your duties were to carry out the instructions? A. Yes, sir; and I don't know that Mr. Winston and Mr. McCurdy did not state their views on it; they may have been asked.

Q. They may have voted against it? A. I know nothing of that.

Q. Then you say it was undoubtedly their duty to carry out the instructions of the committee, as approved by the board? A. Yes, sir.

Q. Did this question of the first bonus—I call your attention to page 95, the first bonus that was ordered—

Mr. DARLINGTON :

I think that was not charged.

Mr. SEWELL :

Mr. McCulloh charged distinctly that the whole plan was got up for the benefit of Mr. Winston.

Q. Was this whole plan of bonuses got up merely for the purpose of benefiting Mr. Winston; got up by Mr. Winston's machinations for that purpose? A. I can hardly answer that question; certainly he was not the only one that did benefit by it.

Q. All the officers benefited by it, did they not? A. With one exception, I think.

Q. Who was that? A. Mr. Abbott, the secretary, was not included.

Q. Did Mr. Winston benefit by it at that time; he was not included in this first resolution of bonuses, was he; I call your attention to the report of the committee? A. He was not included in the first resolution, but he received a bonus, unless I am entirely wrong.

Mr. ATWOOD:

No; I think it was not given at that time.

Mr. DARLINGTON:

We have proved the date exactly; it was after the 21st of November, 1867, I think.

WITNESS.—Subsequently awarded.

Q. When was this bonus business terminated? A. You have the date here; I have forgotten the exact time.

Q. It lasted for two or three years, didn't it? A. Yes, sir.

Q. You have testified with regard to the moneys being deposited in the Indemnity Company; was it not absolutely necessary in the conducting of so large a business as the Mutual Life Insurance Company's is, to have a large amount of money in hand from time to time, waiting for opportunity for investment, and as a fund out of which to pay losses? A. It is certainly usual in all cases to have a greater or less amount, but, not being a financier, I can hardly answer the question.

Q. The company is limited, in the kind of securities upon which to loan money, to one or two kinds? A. You may reduce them to one or two kinds; bonds and mortgages, and stocks of different kinds.

Q. What different kinds of stocks are they allowed to invest in A. United States, and stocks of the State of New York.

Q. Public stocks of the State itself? A. Yes, sir.

Q. And those of any incorporated city? A. Yes, sir.

Q. Or county? A. Or county; and the stocks created by the laws of different States, where it is necessary to do so, in order to transact business.

Q. As a matter of fact, has the Mutual Life Insurance Company ever invested any in that description of securities? A. I am not aware that they have.

Q. You speak of companies being allowed to invest in stocks of

other States; does that apply to the Mutual Life Insurance Company, or only to companies organized under the general insurance laws?

Mr. McCurdy:

Your answer refers to the companies organized under the general laws.

WITNESS—Well.

Q. Then the bonds and mortgages in which the funds of the company are required to be invested are bonds and mortgages upon real estate in the State of New York, and adjoining States, within fifty miles of the city of New York, which must be in value double the amount of the loan, must it not? A. The wording is: "worth fifty per cent in each case more than the amount of loan."

Q. You are now talking about the general law? A. Yes, sir.

Q. But is not the Mutual Life Insurance Company's charter different from the general law? A. Yes, sir; it is a special charter.

Q. Does it not provide that it shall only lend fifty per cent of the value? A. Yes, sir; I think it does—in the charter; the practice is never to exceed fifty per cent of the value.

Q. In such a state of limitation, in respect to the investments of the company, it does not need an expert to answer the question; is it not necessary that a large amount of money should be on hand from time to time, waiting for investment, and to meet drafts for death claims, and for other purposes, as they come due?

Mr. DARLINGTON:

That is a mere question of inference; the committee can determine that, as well as the witness, I suppose.

Mr. SEWELL:

No; the committee never were as conversant with the working of the company as he was.

WITNESS—I have sometimes thought there was more cash on hand than there was any necessity for; but a considerable amount must, of necessity, be always kept on hand awaiting investment.

Q. You testified that the testimony taken in the investigation of the company, made by George W. Miller, was published at the expense of the company, and was copy-righted, with the intention of preventing its publication by anybody else; I desire to ask you whether, if it had been published by anybody else, other companies would not have used the publication—the agents of other companies,

at least—would not have used the publication for the purpose of depreciating the Mutual Life Insurance Company, and inducing persons about to take out life insurance to take it out in the companies they represented? A. They might possibly have done so.

Q. Do you not know that it was to prevent that, which was reasonably apprehended by the officers of the company, that this publication was made and copy-righted? A. I never heard that reason given until this moment—or suggested.

Q. How do you know that the intention was to prevent its being published by some one else? A. I can only say that my judgment led me to that inference.

Q. It was a matter, then, of inference, and not a matter of information by any of the officers of the company to you? A. No, sir.

Q. How long have you known Stephen English? A. I should say four or five years.

Q. Was he not, at the time of the investigation of the company before George W. Miller, present at the investigation very often, when you were there? A. My impression is that he was present at different times; although I have no recollection of seeing him there more than once or twice.

Q. He was at that time known as a person who advocated the policy of the then management of the company, and was opposed to Mr. McCulloh and his friends? A. I never knew of any opposition to Mr. McCulloh or to his friends, whoever they may be.

Q. You were not present at a personal altercation between him and Mr. McCulloh, in the office of the company? A. I was not.

Q. Was the investigation before Mr. George W. Miller an open investigation, or was the room kept locked or closed?

Mr. DARLINGTON :

Those words, I suppose, are too general. Open, do you mean, to the press?

Mr. SEWELL :

Open to the public; to anybody that chose to come in.

Witness—I am not aware whether it was kept strictly private or not; I think persons were admitted.

Q. You were always admitted whenever you chose to come in? A. Yes, sir; always.

Q. And you were there quite often? A. I was there on different occasions; I don't recollect how often; I was called before them several times.

Q. Besides being called there as a witness, were you not there on several occasions while the evidence was being taken? A. I was in and out frequently.

Q. Did you ever hear of anybody being prevented from being present? A. No, sir.

Q. This Husted loan, as it is called, did any loss accrue to the company from that loan? A. No, sir.

Q. The president had authority to purchase stocks of the United States at that time, had he not? A. No, sir; not by any general resolution, as I ever heard, or particular resolution.

Q. He claims to have had authority to purchase stocks of the United States, and certificates of indebtedness; the securities are mentioned under the authority of a resolution of the board of trustees? A. I had never heard of it; it is quite possible that there may have been such a resolution.

Q. These stocks of the United States upon which this loan was claimed to have been made were abundant security for this amount of money, were they not? A. I have never seen the amount of security deposited there; I have no knowledge of it.

Q. Would not \$40,000 of United States stock be an abundant security for a loan of \$30,000? A. Undoubtedly.

Q. This matter of the alleged exercise of authority illegally by Mr. Winston, in making this loan of \$30,000 to Mr. Husted, was the subject of an investigating committee of the board, appointed for the purpose of ascertaining the facts of the transaction, was it not? A. Yes, sir.

Q. And that committee exonerated Mr. Winston from all blame in the matter, did they not? A. Not fully; the report of the committee is before you, I think.

Q. Didn't the committee say there was much to praise in the action of Mr. Winston, and nothing to condemn? A. There were words to that effect by the majority of the committee.

Q. And that majority report was adopted by the board, was it not? A. Yes, sir.

By Mr. BLESSING :

Q. Was there a minority report on that? A. There was a minority report.

Q. Was it ever printed? A. No, sir; I have never seen it in print.

Q. Did they stop the publication of it? A. I don't think there was ever any call for the publication of the minority report.

Q. Who appointed this investigating committee? A. That I am not aware of; it was appointed at a meeting of the board of directors at which I was not present.

Q. How many members of the board of directors are there? A. There are thirty-six when the board is full, including the vice-president and president.

The CHAIRMAN :

Of course the majority can act?

WITNESS—Oh, yes, sir; the majority govern.

By Mr. BLESSING :

Q. How many of those majority directors do you think are friendly to Mr. Winston? A. That is very hard for me to say; I suppose they are all friendly to him.

Q. He appointed the whole committee, I suppose? A. I don't recollect by whom the committee was appointed at that time.

Mr. SEWELL :

I call Mr. Blessing's attention to page eleven of that book, which will answer his question as to which members of the board were friendly to Mr. Winston; it is signed by every member of the board; will you be good enough to read it?

"At the usual quarterly meeting of the board of trustees, held on the 16th October, 1872, on motion it was unanimously

"*Resolved*, That in accepting the statement of the actuary and auditor at this meeting, the trustees deem it their duty, and the present a fitting occasion, to express their continued confidence in the watchfulness, ability and integrity with which the business has been conducted by the executive officers, and their appreciation of the faithful performance of their duties by those employed in other departments of the institution.

"*Resolved*, That we, the undersigned trustees of the Mutual Life

Insurance Company of New York, do express our entire confidence in the accuracy of the preceding statement.

"JOHN V. L. PRUYN,
I. GREEN PETERSON,
R. H. McCURDY,
WILLIAM BETTS,
S. D. BABCOCK,
MARTIN BATES,
SAMUEL M. CORNELL,
SAM'L E. SPROULLS,
WM. A. HAINES,
HENRY E. DAVIES,
WM. H. POPHAM,
GEO. S. COE,
DAVID HOADLEY,
W. E. DODGE,
RICH. PATRICK,
F. R. STARR,

JOHN E. DEVELIN,
H. C. VON POST,
JOHN WADSWORTH,
ALONZO CHILD,
EZRA WHEELER,
WM. SMITH BROWN,
LUCIUS ROBINSON,
ALFRED EDWARDS,
JAS. C. HOLDEN,
FRANCIS SKIDDY,
O. H. PALMER,
ALEX. H. RICE,
GEO. C. RICHARDSON,
WM. M. VERMILYE,
S. L. HUSTED,
J. ELLIOT CONDUCT,

W. P. BABCOCK."

Mr. SEWELL :

The minority report is put in evidence by Mr. McCulloh.

By Mr. BLESSING :

Mr. Homans says they made a minority report ; and it has never been published.

Mr. SEWELL :

It was put in evidence by Mr. McCulloh ; it is in evidence, signed by Mr. Brown, who, as Mr. McCulloh said, was very anxious to get his name off of it now.

Mr. DARLINGTON :

Give the reason why.

Mr. SEWELL :

"Because his son was appointed, as counsel, by the company," or something of that kind.

By Mr. SEWELL :

Q. I call your attention now to this matter of the return of this Husted loan ; there had been some entry made on a slip of paper by the clerk ; this slip of paper was no part of the books or records of the company ? A. The slip of paper was no book ; it was an official

paper, however, prepared by the direction of the finance committee, for their use and information.

Q. It was intended to be a transcript of the books of the company, was it not, or to condense information that was on the books of the company? A. The object was very clearly to indicate the amount of receipts and payments during the week, in order that the finance committee might know how much was available for investment.

Q. This piece of paper that was presented on that occasion, showed that perfectly, didn't it? A. It showed correctly—

Q. It made no difference as to the result of that piece of paper, and the information that the finance committee wanted from what source those receipts were obtained, did it? A. Not as to the aggregate amount; no.

Q. The books of the company showed the transaction as it was, didn't they? A. The cash-book of the company showed the transaction correctly.

Q. There has been no attempt made to alter the record in that respect? A. No, sir.

Q. This question of the advance of money by Mr. Winston, on drafts of Colonel North and Mr. Seymour; the company lost not a dollar by that, did they? A. Not to my knowledge; not one dollar.

Q. Was Mr. Lucius Robinson, at that time, comptroller of the State of New York? A. I have forgotten whether he was at that precise time or not.

Q. He was then, as now, a counsel, and one of the trustees of the company, was he not? A. He was.

Mr. DARLINGTON:

That all appears from Mr. Robinson's examination in the book; we have all of it.

Mr. ATWOOD:

That book, entire, is in evidence before the committee.

Q. Do you know anything about that matter that convicts any of the officers of the company of malappropriation of the funds of the company? A. The transaction was not one authorized at all; it was on the individual responsibility of Mr. Winston.

Q. Afterward ratified? A. It was afterward ratified; the criticism to be made on it was that the money reported to be in the hands of the cashier, was not there.

Q. Well, was there not, in place of the money, a draft upon the State Treasurer of the State of New York, which was good for the amount? A. The war drafts were in the cashier's drawer; but in the interim, between the transmission of the money and the receipt of the draft, there was nothing, I presume.

Q. There was no payment made till the draft was received, was there? A. The precise nature of the transaction I can scarcely recall, with accuracy.

Mr. DARLINGTON :

That would be no security, however; the State law provides that there must be security given.

WITNESS—There was no question of the fact that the money was reported to be in the hands of the cashier, and the transaction was not authorized.

Q. Suppose a man comes into your office in the afternoon and gets you to cash a check for him—you put that check in the drawer—would you consider it a false statement to call that check cash on hand, in the drawer, if you were called upon the next day to make a statement of the financial condition of the institution?

Mr. DARLINGTON :

Would it not depend upon whether the check was good or not?

Mr. SEWELL :

That was good.

Mr. DARLINGTON :

Oh, no; that was not good; it was paid four months afterward, and was in violation of the law.

WITNESS.—In answer to your question; if the cashier had cashed a check for an individual, he would have done it on his own responsibility.

Q. Would it be a false statement to call it cash on hand, the check being there to represent the cash? A. It would not be a correct statement to say that there was so much money on hand, unless the check was certified.

Q. Are not premiums constantly being paid by checks; individual checks? A. Yes, sir.

Q. Not certified? A. Undoubtedly.

Q. Was it a false statement to call those checks "cash on hand?"

A. No.

Q. How much more is it cash on hand, if it is certified, than if it is not? A. It would be this: If the cashier used the money of the company in cashing a check, which he was not authorized to do, whereas the receipt of premiums is his proper duty—

Q. Nevertheless, the falseness of the statement is the same, whether it is his duty or not; I ask you if that would be a false statement? A. It is not necessarily a false statement.

Q. Isn't it the constant usage of mercantile houses and insurance establishments to call checks "cash"? (Objected to by Mr. Darlington.)

By Mr. BLESSING:

Q. Was the check certified by the bank? A. A check certified by the bank would be, undoubtedly, the same as money, if the bank were good; but I should make a distinction; I don't know whether I can make it clear; if the cashier should cash a draft or check for a private individual, and in the ordinary course of business, and as an accommodation or favor, and would state that that piece of paper in his drawer was "money on hand," it would not be a correct statement.

By Mr. ATWOOD:

Q. On his own responsibility? A. On his own responsibility.

By Mr. SEWELL:

Q. All the criticism that you can make upon this transaction is, as I understand, that the president, during war time, for the purpose of expediting the transfer of moneys of the State of New York to the battle-front, to aid the soldiers of the State, took some responsibilities upon himself which the letter of the charter did not allow; is not that the whole of the criticism? A. No, sir; it would be of a different character.

Q. What is your criticism? A. My criticism is that the moneys were advanced to the State agent without the authority of the committee or of the board, and that an attempt of concealment was made, by stating that the money was in the hands of the cashier.

Q. Do you know as to whether the finance committee did or did not understand all about that transaction? A. They did not at the time; they afterward investigated it, and it was approved, I think.

Q. How do you know that they didn't know it at the time, or a majority of them ? A. I know that the finance committee didn't know it ; whether any individual members may have known it, or not, I can't say.

Q. Do you, or not, know, whether each and every individual member of the finance committee did not know or approve of the transaction ? A. I do.

Q. What one of them didn't know it ? A. Mr. Pierson.

Q. Isaac Green Pierson ? A. Yes, sir.

Q. Did he disapprove of it ? A. Yes, sir ; he has disapproved of it ; my knowledge is chiefly gathered from the report of the committee itself ; the committee appointed some one to examine this matter.

Q. You have been asked by Mr. Darlington or Mr. Atwood whether the trustees and officers, or particularly the officers and Mr. Winston—have not been freely criticised in the newspapers for the last six months, and you said “yes.”—

MR. DARLINGTON :

Prior to the last six months ?

—Prior to the last six months, and you answered “yes ;” I now want to ask you whether you ever saw any charge in the newspapers, until Mr. Stephen English made the charge, that Mr. Winston and Mr. McCurdy were making use of improper efforts to influence the appointment of a person as Superintendent of the Insurance Department, for the purpose of shielding themselves from the consequences of their malappropriation of the company's funds ? A. I had seen it stated, and I had been informed by persons who were posted—insurance men—that the officers of the company were endeavoring to get certain individuals appointed as Superintendent.

Q. Who are the individuals ? A. Mr. Lucius Robinson was one, in particular,

Q. Was the charge, that it was for the purpose of shielding themselves from the consequences of their malappropriation of the company's funds ; did you see that in print ? A. No, I never saw that in print ; I have seen it commented on very freely that the officers were using very great exertions to retain Mr. Miller in office.

Q. That is not the point ; it was somebody in his place that I asked about ; did you ever see, or do you know, or did you ever hear it charged, that Mr. Winston had cashed drafts for his friends, and

allowed them to remain for a year or more in the drawers, until they accumulated to heavy totals?

Mr. DARLINGTON :

That is a misprint ; not a *year* ; it is for *half* a year, I think ; at any rate, it is not a copy of the paper.

Mr. SEWELL :

That is the complaint in this action.

Mr. DARLINGTON :

It is not a copy of the publication ; I have a copy of the publication here ; which count is it ?

Mr. SEWELL :

It is the 17th folio of the complaint ; the third count.

Mr. DARLINGTON :

“ Thus does Mr. Winston ride the company and subject it wholly to the tyranny of his will ; he uses its funds as if they were his personal property ; he turns the company into a bank, and cashes drafts for his friends, and allows them to remain for a year or more.”

That is the article, I suppose, in point.

Q. Did you ever hear of this charge ever having been made, in print, that he cashed drafts for his friends, and allowed them to remain in the drawers of the company for half a year and more, till they accumulated to heavy totals, reckoning them as cash on hand, and keeping no record whatever of the transaction, and thus using and misusing the funds of the company, without the sanction of the trustees, and contrary to the provisions of the company's charter ?

A. I have never heard of any charge like that, unless it be the one we were speaking of just now, as the advance to the State agent.

Q. That is the only one you have ever heard of ? A. That is the only one.

Q. Did you ever see it charged in the public prints, or heard it spoken of commonly, that Mr. McCurdy and Mr. Winston had entered into a conspiracy to give out to the world that Stephen English was mad, and thereby account for his attacks upon the company ?

A. I have heard something to that effect, but I really don't know—

Q. Whom did you hear it from ? A. I don't recollect.

Q. Was it before or since English's publication ? A. Yes, sir ; I

saw it, I think, in the insurance paper, published in Newark, of which Mr. Mills was the editor.

Q. You saw that Mr. Winston or Mr. McCurdy had done so? A. My impression is that I saw that Mr. Winston had stated that Mr. English was insane, and that is the paper I saw it in; I saw it in some paper.

Q. Did you see anything in that paper, or any other, that Mr. Winston and Mr. McCurdy had come to an agreement between themselves? A. No, sir.

Q. That was the question—

Mr. DARLINGTON:

Our information is that Mr. McCurdy wrote the article.

By Mr. SEWELL:

Q. Was the reason of your leaving the Mutual Life Insurance Company, the fact that you did not consider Mr. Winston a fit associate? A. I never stated that.

Mr SEWELL:

That is one of the libels.

Mr. DARLINGTON:

Not that Mr. Homans said so.

Q. Was that the fact; I ask you, quoting from the complaint: "But Mr. Homans, who was a man of science, and a gentleman of honor, was not a fit associate for Mr. Winston and Mr. McCurdy; they are mere schemers; they do not care a fig for life insurance beyond the facility it affords them to make money faster than they could gain it in merchandise or in law; Mr. Homans, however, cherished a love for its principles and beneficence, and found it impossible, after years of forbearance and ineffectual protest, to remain in an organization of which the greatness was only a convenient shield to hide venal corruption and personal aggrandizement;" I ask you if that is a fair statement of the cause of your leaving the Mutual Insurance Company? A. It certainly should not be the way that I would put it.

Mr. DARLINGTON:

Suppose you let him put it in his own way. He won't say but that he has a love for the principles of insurance.

Mr. SEWELL :

Yes, I will let him state that.

Mr. DARLINGTON :

Which article is that in ? I want you to show him the paper, so that he can state it in his own way. I only want to confine him to that subject, as to whether he did not cherish a love for its principles.

Mr. SEWELL :

I won't show him the papers. You asked him to state it in his own way.

WITNESS— It is a very difficult question to answer, the way it is propounded.

Q. Was there not a very long controversy between you and Mr. Winston before you left the company, about a variety of matters ?

A. No, sir ; I can't say that ; we were never in very full accord, I think ; personally we were, but officially not very full accord.

Q. Were there not some matters with respect to your discharge of the duties of your department, in which you and he had an irreconcilable difference of opinion ? A. No, sir ; not at all ; I never heard any criticism on the way I discharged my duties, or had any controversy with Mr. Winston in regard to it.

Q. Mr. Winston was of opinion that the Mutual Life Insurance Company required all your talent and all your time, was he not ?

A. Not always.

Q. And hadn't it been, prior to your leaving there, a cause of difference between you ? A. No, sir ; not until just the moment of my leaving.

Q. Was there not a complaint made by some of the agents of the company that you, as an actuary, had given certificates to other companies, which interfered with the business of the Mutual Life Insurance Company ? A. No, sir ; just before I left, a letter appeared in a St. Louis paper, a private note which I had written, speaking well of another company, and given on the condition that it was not to be published, which, without any wrong intention, was published, and most amply atoned for, and explained by the officers of the company ; and that was the charge, that I had spoken too favorably of another company ; but the charge was not sustained, and was dropped most completely, as I was assured at the time.

Q. Was there not more than one such charge ? A. No, sir ; afterward, after this had been disposed of, there was a letter I wrote to

Mr. Barnes, which I considered a personal letter, which he published, but which had no reference to any individual company ; that, I suppose, you allude to ; but that was also withdrawn.

Q. Was not the fact that complaints had been made of your acting as actuary for other companies the immediate cause of your resignation ? A. Not at all ; I never heard that it had been a cause of complaint until just before I left.

Q. Was it not a condition of your resignation that these complaints should be withdrawn ? A. Not at all ; they were withdrawn before I would listen to any terms or speak of leaving, in any way or shape.

Q. Did you not make it a condition that they should be withdrawn before you would speak of leaving ? A. No, sir ; I assumed, if they were withdrawn at all, they were withdrawn as baseless ; without any cause at all ; and unless they were withdrawn, I would not speak of leaving in any way or shape ; and they were withdrawn unconditionally before I spoke of resigning.

Q. Did you ever see any charge made in any newspaper or other publication, before Stephen English charged it in his paper, that Mr. Winston had corrupted the Legislature, and paid to Tom Fields and other members of it money to prevent their investigating into his conduct of the Mutual Life Insurance Company ? A. There were statements in the daily press at the time of this investigation, called the "Dennis Burns" investigation, to the effect that the officers of the Mutual Life Insurance Company had paid this committee.

Q. Was there any statement that Frederick S. Winston had paid the committee ? A. I don't recollect how specifically his name was mentioned, but I think it was mentioned.

Q. What paper was it published in ? A. The Evening Post, among others.

Q. Did it publish the fact that Mr. Winston had paid them ? A. Not the fact ; the rumor that the committee had been bought, I think, the expression was.

Q. You must be entirely mistaken about that ; was not the publication, in the Evening Post, a publication saying that they were a black-mailing committee, and hoping the insurance companies would not pay them ? A. The publication I allude to was a rumor that the companies had paid, I think it was \$30,000, to this committee.

Q. The companies had ? A. The companies or company had, and warning them that such would be ruinous, and speaking in terms against it.

Q. Did they implicate Mr. Winston in any way, any more than any other president of a life insurance company? A. Only as the most prominent man in the profession.

Q. Did it mention his name? A. I think not.

Q. While you were actuary of the Mutual Life, and receiving a salary from them, what other companies were you acting for as consulting actuary, or otherwise, as an actuary? A. I had at different times given some personal advice to the companies, a list of which is printed before you *there*.

Q. The Universal, the Washington, the Widows' and Orphans', the National, the Standard, the Massachusetts, Mutual of New York and the Home? A. Those were, in general, the companies where I had given information in regard to the distribution of surplus, and the method adopted by the Mutual Life, first, and since followed by all the other companies; they naturally sought for information from me about it, and in some few cases that information was paid for, but generally it was not; I will state also, since you have asked the question, in regard to the Widows' and Orphans' and Universal, my connection with them was by votes of some of the trustees of the Mutual Life Insurance Company.

Q. You testified that it was a private letter of yours that was written to a St. Louis company, which was published; were not you paid \$150 for writing that? A. Not a penny.

Q. You never received a cent for it? A. No, sir; I got a civil letter from a gentleman who said that he had been solicited to insure in the St Louis Mutual Life Insurance Company; and he had heard that I was insured there, and had taken the liberty of asking my opinion; I had never heard of him before; I wrote back that the company was a good one; I had known of the officers since I was a boy, and my life was insured there; but I thought it might be an agency dodge, and I took the precaution of going to the managers in New York, and asked if that man was an agent, and they replied no; I said if this is a *bona fide* inquiry and will not be used as a public document, I will send the letter; and that pledge was given me that it should be never published or used as a canvassing document; and some months afterward an officer newly appointed in the company, happened to see it, and he put it in the daily print; and the president and secretary and vice-president made the most ample apologies and said it was an inadvertence, and there was no intention to do so; the letter was a simple answer to a simple request; I never received any

compensation in any way ; I paid my premium by a check, just as any other person would do ; and that was the charge upon which a committee was appointed, and which was shown to be entirely baseless, and was withdrawn completely before I would listen to any suggestion about resigning, or changing my position in any way.

Q. Did you know that Mr. Winston had written a letter to that committee, in which a great many other charges were made ? A. Never, until informed by Mr. McCurdy two years afterwards ; I never had seen the charges ; I was told explicitly by Mr. George S. Coe and by other members of the committee that any charges that had been made were withdrawn *in toto* ; that there were no charges whatever against me ; and I said, before I would listen to any idea of resigning, that they must be withdrawn.

By Mr. ABBOTT :

Q. Where did you see it charged that the committee of the Legislature received \$30,000 ? A. In the Evening Post, there was some rumor.

Q. It was a rumor merely ? A. Merely a rumor ; this was four or five years ago, at the time of the Denis Burns investigation here ; Tom Fields was a member of it.

By Mr. BLESSING :

Q. You don't know the names of the members of the committee at that time ? A. I don't recollect who the other members were ; I think Mr. Jacobs was one ; I am not sure ; the names were given at the time.

By Mr. ABBOTT :

Q. What date was that ? A. This must be some five years ago ; Mr. Dennis Burns was chairman.

By Mr. SEWELL :

Q. You continued as consulting actuary of the company down to a date in December last, didn't you ? A. I did.

Q. An arrangement was entered into, or some change was made by the company, in which they dispensed with that office after the first of January, and you were notified of it ; did you hold office until the first of January or did you resign ? A. I resigned on the sixth of December.

Q. Was that the same day on which you attended a meeting of

twenty-four other companies opposed to the Mutual Life Insurance Company? A. I attended no meeting of any insurance companies; the meeting you refer to was called at my office; I asked a number of prominent gentlemen who had consulted with me in regard to this proposed change, if they would not come around and have a little talk.

Q. That was the meeting at which you became employed as one of the three actuaries employed by the company opposed? A. I never was employed, or received a penny of compensation for anything I did in connection with the reduction of rates.

Q. Did you sign a paper in connection with Mr. Fackler and Mr. Elizur Wright? A. I wrote my views of it, and then the other actuaries wrote their views of it.

Q. Didn't you, while you were actuary of the Mutual Life, recommend, on various occasions, a reduction of the rates? A. Never; they never were reduced.

Q. Didn't you, in conversation, say that they could be reduced, or ought to be reduced? A. Never.

JOHN OLIVER, *sworn*.

Examined by Mr. DARLINGTON:

Q. You were the foreman of Bradstreet & Co.? A. Yes, sir.

Q. Printers? A. J. L. Bradstreet & Son.

Q. For years past you have been engaged in printing the Insurance Times, haven't you? A. Since 1868.

Q. For Mr. Stephen English? A. Yes, sir.

Q. In January last, did you receive any threats if you continued the publication? A. We received letters from Messrs. Sewell and Pierce, and other counsel, that if we continued to print libels—

Mr. SEWELL:

Wait a moment; where are the letters?

Mr. DARLINGTON:

I have got copies of them.

Mr. SEWELL:

Where are the original letters?

Mr. DARLINGTON:

I have not got the original.

Mr. SEWELL :

You don't suppose you are going to put in copies, unless the original is shown to be lost, destroyed or out of the control of the party offering them.

Mr. DARLINGTON :

The committee are entitled to get information even without that ; they can even ask him of whom he heard it, and have it that way ; I have copies here of three of the letters, and I propose to prove a fourth one. .

By Mr. BLESSING :

Q. Have you the original letters ? A. They are in the possession of the firm, and those copies I wrote at the request of Mr. English ; he took exceptions to our discontinuing printing the paper, and I sent the copies to him to let him know why we did discontinue it.

By Mr. DARLINGTON :

Q. There was another one, was not there ? A. There was another one.

Q. Those three are copies made by you of letters received by Bradstreet & Co. ? A. Yes, sir ; I copied them from the originals.

Mr. DARLINGTON :

I offer those three copies in evidence.

By the CHAIRMAN :

Q. You stated that those are exact copies ; did you copy them from the original ? A. Yes, sir ; I copied them from the original.

By Mr. BLESSING :

Q. Can you furnish the original letters from which you copied them ? A. The firm I suppose could ; they are in the possession of the firm ; they are not in my possession individually.

By Mr. SEWELL :

Q. Whose letters are those ? A. The firm's.

Mr. SEWELL :

I will read the one that we wrote, and if it is correct I have no objection to allowing it to go in ; how does this man know who

wrote the letters? *That* I will admit as written by us (after reading the letter), and I will read it.

Exhibit 7, April 14th, 1873, and copied as follows :

(Copy.)

"NEW YORK, *January 14, 1873.*

"MESSRS. J. M. BRADSTREET & SON :

"GENTLEMEN.—We have been informed that you have printed the Insurance Times for Stephen English. The columns of that sheet for six months past have been filled with libels of a most malicious and defamatory character upon our clients, Mr. F. S. Winston and Mr. R. A. McCurdy. We yesterday commenced two civil actions against English, and orders of arrest have been issued to hold him to bail. Our good friend, your counsel, Mr. Bird, will tell you that the printer of a libel is as responsible as the writer, and our clients have the same cause of action against you that they have against Mr. English.

"This communication is intended to call your attention to the facts, and to say, on behalf of our clients, that while we do not waive any claim for damages which they have against you for the libels heretofore printed by you, we are instructed if, after this notice, you print any more defamatory matters, to commence legal proceedings against you.

"Hoping you will avoid forcing such a course upon us,

"We are your obedient servants,

"SEWELL & PIERCE."

Mr. SEWELL :

That letter we wrote, and we avow every word of it ; we will do it just as sure as they do what we tell them not to do ; these two letters I will not admit, and will object to them as having nothing to do with us, one of them relating to parties with whom we have nothing to do.

Mr. DARLINGTON :

We, propose to show that these two other letters were received about the same time ; and to connect Mr. Savage and Mr. Phipps and Mr. Winston in attempting to stop the publication of the paper.

Mr. SEWELL :

On the whole, I think that though it is entirely irregular and improper, and my brother ought to know better than to offer these papers, I will allow them to come in, as it proves that Stephen English is a common libeler ; and that there are other people who complain

of him. It seems there are other people whom he is blackguarding all the time.

Copy of letter, dated January 22d, 1873, marked "Exhibit 8, April 14th, 1873;" and letter dated January 8th, 1873, marked "Exhibit 9, April 14th, 1873." They are as follows:

"NEW YORK, *January 22d, 1873.*

"MESSRS. J. M. BRADSTREET & SON:

"GENTLEMEN.—I am instructed by George W. Savage, Esq., President of the New York Board of Underwriters, and late President of the International Insurance Company, to call your attention to the gross libels upon him in recent issues of the Insurance Times, published by you. If these libels are continued, I am directed to commence a suit against you for damages. In the meantime he reserves his right to take such action in relation to the libels heretofore published as he may be advised.

"Respectfully yours,

WARREN G. BROWN."

"NEW YORK, *January 8th, 1873.*

"MESSRS. J. M. BRADSTREET & SON, *Commercial Agency and Printers, 279 Broadway and 57 Reade street.*"

"GENTLEMEN.—We have been retained by Mr. Wm. F. Phipps to prosecute an action for libel against the editor, proprietors and publishers of the Insurance Times. We were not aware until yesterday that you were the printers and publishers of that journal. We have advised Mr. Phipps that he has a good cause of action against you for all the libels published in that paper, as against himself. He desires us to inform you, before taking any against you, of our intentions.

"Who is to inform you, therefore, that Mr. Phipps will hold you to a strict account, as printers and publishers of the said papers, for all the libels and slanders in regard to himself, published therein, and for whatever damages he may be entitled to.

"Yours truly,

"CHASE, BESTOM & HOLT."

By MR. ABBOTT:

Q. You propose to connect them with Mr. Winston?

MR. DARLINGTON:

Yes, sir.

By MR. DARLINGTON:

Q. In consequence of these letters, did you decline to print his paper? A. Yes, sir.

JOHN H. BEWLEY, *sworn*.

Examined by Mr. DARLINGTON :

Q. What is your business? A. I am an officer of a life insurance company.

Q. Were you formerly in the employ of the Mutual Life? A. I was.

Q. Do you know Mr. Frederick S. Winston? A. I do.

Q. You left that company? A. Yes, sir.

Q. About what time? A. In the year 1864; in the end of December.

Q. You were book-keeper of the company? A. Yes, sir; in the latter part of my services I was.

Q. You were there at the time of this transaction, when Mr. Husted got some money from the company? A. Yes, sir; I was.

Mr. SEWELL :

Let me read that testimony, and ask him if it is correct (the testimony in the printed book).

WITNESS—I read that to-day; it is substantially correct.

By Mr. DARLINGTON :

Q. The testimony you have given here from pages 117 to 122, inclusive? A. Yes, sir.

Q. Did you know of any other facts in regard to malappropriation of funds by Mr. Winston? A. Of my own knowledge I do not.

Q. Do you know of the publication of charges against him? A. Yes, sir; I have read those in Mr. English's paper, and those in the Herald.

Q. Prior to that, in the Baltimore Underwriter? A. Yes, sir.

Q. Didn't you, yourself, publish an article about it? A. I have written some articles in the Baltimore Underwriter.

Q. And besides that in the Baltimore Underwriter, did you not publish some pamphlets or slips? A. I published a slip, now that I remember of, called Sartor Resartus.

Q. You have read the charges published in the Insurance Times? A. Oh, yes sir; from time to time I have read some of them, and some I have not; I have taken very little interest in this question lately; I have had my own business to attend to; that Sartor Resartus was written as smarting under an unjust statement of our affairs put forth by the Mutual Life, as an attempt to injure the company that I am now connected with; this was done as retaliation.

By Mr. SEWELL :

Q. It was an agent's document, as I understand it? A. They were distributed largely by our agents; and I believe by the agents of the companies; and I thought it was quite a respectable retort.

Q. This paper which has been produced, marked as an exhibit, is the one, isn't it?

Mr. SEWELL :

Well, we won't fight about it; I will admit it.

Q. These articles in the Underwriter; look at those and see if you ever saw them before? A. I have seen *that* article before, and *that* (Exhibits 5 and 6).

Q. Hadn't these charges, in reference to malappropriation of funds by Mr. Winston, been a matter of common notoriety amongst insurance people, and in insurance papers? A. Yes, sir; I have heard them frequently spoken of.

Q. Long prior to the publication by Mr. English? A. Yes, sir; but you must specify charges there, because Mr. English has made charges I never heard before.

By Mr. SEWELL :

Q. He has made charges you never heard before? A. Yes, sir; but I don't question their truth; I don't mean to say anything about that.

Mr. SEWELL :

Oh, no; we never questioned their truth.

WITNESS.—I only want to be square on my own record.

By Mr. DARLINGTON :

Q. I see you refer to the item of paid dividends and cash, so much, in your article, and to the appropriation of surplus, in addition to their salaries, and have it charged "dividends to policy holders?" A. I remember it all distinctly.

Q. I see you refer to the Dennis Burns committee; at that time was it a common remark in reference to this committee and their action, as to Mr. Winston's connection with it? A. Yes, sir.

Q. State what the rumors were? A. The rumors were that the committee had been "seen."

By Mr. SEWELL:

Q. What does that mean? A. I don't know; seen by some agents.

Mr. ABBOTT:

That is a legislative phrase.

Mr. SEWELL:

That, I suppose, is an active intransitive verb, and it is proper to say who "saw" them; isn't it?

WITNESS—I suppose so; I don't know whether I have a right to suggest it; but the manner in which the committee suspended its examinations, and never gave forth its report, gives some sort of a color to the idea that an influence was exerted to smother it.

By Mr. DARLINGTON:

Q. Did you hear of the Mutual Life, or any of its officers, having contributed money to influence legislators or legislation? A. Oh, that has been said of every company in the city almost; there are very few companies—of course my own is one exception; we do not do it.

By Mr. SEWELL:

Q. You never do anything of that kind? A. Never; we can't afford it.

By Mr. ABBOTT:

Q. It was pretty generally understood at that time that the committee was captured? A. Oh, yes, sir; I had better state that my company is the *Universal* Life Insurance Company; I want that distinctly understood—that we never give anything.

By Mr. SEWELL:

Q. Let me ask whether his company has been investigated? A. No, it never has.

By Mr. DARLINGTON:

Q. Will you be kind enough to state the general nature of the charges which you heard commonly and openly made in respect to the officers of this company?

Mr. SEWELL :

I object to the "general nature."

Q. The specific charges that you heard made about it; state it fully in your own language? A. Oh, my! too much.

Q. Those charges that you had heard against the officers of this company—

Mr. SEWELL :

Mr. Winston's.

Q. Mr. Winston's chiefly?

WITNESS.—State all the charges I have heard against it?

Q. Yes; the public charges? A. In the newspapers?

Q. Yes; or in any insurance papers.

By Mr. SEWELL :

Q. How long would it take? A. A week.

Mr. DARLINGTON :

You can condense that.

Mr. ATWOOD :

I can tell him in brief what the charges are.

Mr. SEWELL :

You are not on the stand, and I object.

Q. State the general nature of the charges? A. I heard it charged that he loaned Mr. Husted—I made the charge myself, I will say, in this case—that he loaned Mr. Husted \$30,000 of the company's money without authority, and that he, either directly or by implication, certainly with his knowledge, the statement furnished to the finance committee every week was falsified with his knowledge, and partly by his direction, to cover up that transaction.

Q. That is one? A. That is one; it was stated—he states that Mr. Winston gave him—I will make this explanation in view of the fact that my testimony on this point before has been ignored and a different coloring given to this transaction by Mr. Winston and his defenders, and which, in a measure, reflects upon the integrity or truthfulness of my statement; I was in office at the time, and I know the charge against him; perfectly familiar with it; I will say I was security clerk at that time, previous to Mr. Sands; I kept the accounts of bonds and mortgages and the bonds and stocks held by the

company; there was a book in which the stocks of different kinds, including certificates of indebtedness, which you all remember were issued during the early part of the war, were entered in this book as soon as received; Mr. Winston, I should say, had a standing order to buy a certain amount of these certificates of indebtedness, according as he could get them, on good terms.

By Mr. SEWELL:

Q. He had that authority? A. He had that undoubtedly; but of no other description of stock; he bought some from Mr. Husted, or stated that he bought them; it was charged by Mr. Frederick S. Winston, who was cashier of the company at that time, on the cash book, as so much paid for certificates of indebtedness; and on the statement made to the finance committee on the Thursday or Tuesday, when they met, following that transaction, that transaction was stated, to my certain knowledge, as certificates of indebtedness purchased; when the loan was repaid by Mr. Husted, it was credited to certificates of indebtedness redeemed, or words to that effect; *that*, Mr. Winston had no right to do; and when Mr. Sands, who made out this weekly statement to the committee, put it before Mr. Winston, he objected to that item, and said it was wrong, and that it should not go before the committee in that way; Mr. Sands came to me, being young in the office, and more or less under my direction, and as I was acquainted with it, and he stated this fact; and I told him he would have to put it in with premiums, or something else; Mr. Winston would not do it in that form; he did put it with premiums, and laid it again before Mr. Winston; and it was put before the committee in that form; now, to my certain knowledge, it has always been the custom of the company, as soon as stocks of any description were bought, to inscribe them with the name of the company, or indorse them with the name of the company and to put them by immediately on their purchase, for security's sake; no such certificates were ever presented to Mr. Sands or to me as those said to have been bought from Mr. Husted; my own conviction is that he never deposited a dollar; Mr. Husted came in afterward, and paid off the loan, with interest on it, and it was credited.

Q. That is one transaction; now, you sold your policy back to the company at a pretty high price? A. Yes, sir.

Q. They gave you \$600 for it, I believe? A. I think that was the amount; I am pretty sure it was.

Q. What other facts—the question was a broad one? A. In regard to that other point that you were examining Mr. Homans on, and this cash in the drawer; I was cognizant of that to a certain extent; I knew that certain documents were carried over as cash.

Q. For months? A. For a considerable time; yes sir; I dare say months.

Q. That is, drafts made on Mr. Winston? A. I don't know what they were; I never saw them; I knew that there were certain amounts said to have been cash in the cashier's hands, which was not cash; if it was checks, or anything of that kind, they were depositable as other checks.

Q. In regard to other charges you have heard publicly made, what other charges had you heard made against him prior to those charges of Mr. English's? A. I heard charges as to the restoration of Mr. Frederick S. Winston's policies; those I had myself on very good authority; and I believe I was the first to bring public attention to them.

Q. Who did you get them from? A. It was imparted to me confidentially; I would prefer not to mention the name; but it was a party whose truthfulness I never for a moment doubted; and the truth of his statements have been since established.

Q. Did you hear anything about the restoration of Mr. Bradford's policy? A. Yes, sir; I have heard about that frequently; I heard it through the publications of Mr. McCulloh.

Q. And in reference to the suspension of Mr. Winston's salary from 1865 to November, 1867? A. Yes, sir; I have heard of that.

Q. In regard to the proxies, and Mr. Winston's power, by the use of proxies; did you hear of that public remark? A. Oh, yes, sir; that was a matter of public remark for a long time; it was well known and currently stated, and has been ever since I was connected with the company, almost, that Mr. Winston had a reserve of proxies that could surmount all opposition; I have seen them produced on an occasion, in connection with Mr. Blunt.

Q. What was that? A. There was some opposition, I believe, anticipated; but there was none shown, and the proxies were produced; I think that was before *your* day, Mr. Sewell; it was when Mr. Dey, and somebody else—

By Mr. SEWELL:

Q. It was a time when the memory of man runneth not to the contrary? A. No; you will find it in the minute-book—the deposit-

book made of the proxies, in my handwriting in the minutes of the board of directors.

Cross-examined by Mr. SEWELL :

Q. Who was it told you—that made these charges which you say were confidential—the same information which you say you would rather not mention personally? A. I have stated my reasons for not mentioning the name.

Q. If it was stated publicly, why have you any objection to name it? A. The fact was stated publicly.

Q. Who stated it publicly? A. I did.

Q. Who stated it publicly before you? A. I stated expressly that I was the first who made it public; that was when Mr. English was the petted defender of the Mutual Life.

Q. Was he the petted defender of the Mutual Life? A. I understood so, and I believe he was.

Q. Was he a petted defender of the Mutual Life? A. I think so; but I don't know it of my own knowledge; newspaper editors, at all events, have the reputation of working for money like everybody else; your own estimation of English don't raise him above that, does it?

Q. How long have you known Mr. Stephen English? A. Almost ever since I have been in the insurance business, off and on; I knew him slightly when we used to go around from the Monitor, when he was associated with Tom Jones.

Q. Do you know Mr. English's character for truth and veracity in the community where he lives? A. I have heard very hard things said about Mr. English.

Q. Won't you answer the question; do you know his character for truth and veracity in the community where he has lived for the last three or four years? A. I have not moved sufficiently among the general community to know what the general opinion is; I have heard people say that Mr. English was a pretty hard case; I have heard some people say that he is a man more sinned against than sinning, particularly in the present transaction; that is my own conviction, I can tell you plainly, in this case.

Q. What is Mr. Stephen English's character among the insurance companies in the city of New York?

Mr. DARLINGTON:

The witness has already stated he does not know his general character.

Mr. SEWELL:

I am limiting it to the insurance companies; I will go through a few companies that I happen to know; that is the only way I can do it fairly.

Q. Don't you know his general character in business? A. I am acquainted with but very few insurance companies in this city.

Mr. ATWOOD:

That is hardly proper to ask him.

Mr. SEWELL:

I concede that it is not proper to say specifically—

A. I am not in a position to say; I am not competent to speak on that subject with justice to Mr. English; I can state that it is thought that the Mutual Life Insurance think him a pretty hard case.

By Mr. DARLINGTON:

Q. They didn't use to think him so, did they? A. No, they did not; I don't know about that, sure.

By Mr. SEWELL:

Q. Well, do you know that of your own knowledge, that they didn't used to think so? A. No; I stated that I withdrew that; they used him, and favored him.

Q. Did you ever hear charged against Mr. Winston, or either or any of the officers of the Mutual Life Insurance Company, except by Stephen English, that they had taken into their pay the expelled superintendent, Miller, at a salary of \$5,000 a year; and that they did pay him \$416.66 a month, because he had secrets in his possession which would be damaging to the officers of the Mutual Life Insurance Company, if they were made public? A. I heard it stated that he had a salary of \$5,000 a year in the Mutual Life.

Q. Who did you hear state that? A. I cannot exactly state that; but I think if you go to any life insurance man, and ask him if he heard it, he would say the same thing—that he had heard it.

Q. Don't you allude, now, to the publication of Mr. English? A. No, I never knew it was published by Mr. English; has it been?

Q. Yes; it is one of the charges? A. I don't know it; I heard it was one of those rumors; and it is currently reported, and very generally believed, so far as I am aware, of my knowledge goes.

Mr. DARLINGTON :

That is the way he published it.

By Mr. SEWELL :

Q. What charges has Mr. English made ; you stated that he has made charges you never heard of before ; what charges are they that you allude to ? A. I don't know ; they occurred to me when you were reading them to Mr. Homans ; and I stood there.

Q. Did you ever hear it charged that there was a deficit of many millions of dollars in the funds of the Mutual Life Insurance Company, that the officers hadn't accounted for ? A. No, sir ; never seriously made ; I have been asked if it was possible that such a deficit could exist.

Q. After the publication of the charge by Mr. English ? A. I don't know what time.

Q. The charge is that the company got rid of \$11,113,239 ; you never heard that charge before specifically ? A. No, sir.

Q. Nor seriously ? A. No.

Q. You have been in opposition to Mr. Winston for a good many years, have you not ; you and he have been at swords' points ? A. Yes, sir.

Q. Both before you left the company and since ? A. Yes, sir.

Q. There was no very good feeling existing between you ? A. I presume not.

Q. There is not on your side, any way, is there ? A. Not very ; at least there used not to be ; it is a matter of indifference to me now altogether.

By the CHAIRMAN :

Q. I would like to ask him what was the cause of that ; what first started it ? A. It was entirely a personal matter ; it was an injustice done to me when I was in the Mutual Life Insurance Company, and subsequently falsehoods spread regarding my character by Mr. Winston ; falsehoods under oath.

By Mr. BLESSING :

Q. How long since you left the Mutual Life Insurance Company ? A. In the year 1864—the end.

Q. Do you know of any irregularities during the time of your services in the company ? A. The Husted one.

Q. Nothing outside of those two transactions that you mentioned ?
A. No, sir ; nothing outside of those two transactions.

Mr. DARLINGTON :

That article, where he speaks about the the Mutual Life, commences, "It is currently reported that Mr. George W. Miller is in the employment of the Mutual Life;" *he* does not say that he was.

Mr. SEWELL :

Mr. Bewley says that it was so.

By Mr. SEWELL :

Q. What charges did Mr. Winston make? A. He said I stole a private account-book belonging to him for the purpose of creating him annoyance and inconvenience ; when he stated it, he knew he lied ; I had the pleasure of telling him so to his face.

Q. The finance committee was in session that morning when young Sands asked him what he should do about it? A. They were about assembling.

Q. The little slip was a printed slip, was it not? A. Yes, sir ; a printed slip ; I had it printed myself.

Q. But containing the sources of the incomings of the company—and one of those heads was premiums? A. Yes, sir.

Q. Was it not the object of putting everything under the head of premiums that was not under some other head? A. No ; well, the thing didn't pretend to be a correct statement at all ; the main items of expenditure were put down correctly ; for instance, the account *could* be, of each loan paid off as a source of income ; the amounts received for any stocks that can be sold, and it was balanced by putting in the premiums ; that was understood by everybody ; it was merely to get at the result, as a basis for the finance committee's action.

Q. That slip was not kept as a part of the accounts of the company? A. That was kept a very long time ; kept by Mr. Sands, under my direction, until the examination was made before Mr. Miller.

Q. And you told him to keep it, lest the question should come up again, for your own purposes? A. Certainly.

Q. These slips were no part of the record of the Mutual Life Company ; they were not kept as accounts? A. They were kept

occasionally, for two or three months, and then the book was closed and thrown away.

Q. Do you know whether that ever really did come into the committee, of your own knowledge? A. Well, it was put on Mr. Winston's desk, and he took it with him; whether he exhibited it to the committee, or not, of course I cannot say.

Q. You say that Mr. Winston said that item was incorrect? A. Yes, sir.

Q. Was not that the fact, that it was incorrect? A. What?

Q. The item of certificates redeemed? A. Of course it was incorrect.

Q. Then the criticism that Mr. Winston made upon the statement as presented to him was a correct criticism, was it not? A. No, sir; it was not a correct criticism.

Q. In what was it incorrect; the criticism that Mr. Winston made upon the statement presented to him was a correct criticism, was it not? A. His criticism of the statement was not correct because unless it was—but, of course, the committee sees the *double entendre*.

JAMES ALEXANDER MOWATT, sworn:

Examined by Mr. DARLINGTON:

Q. Look at the article now shown you, on page 757 of the October number of the Insurance Times—the \$11,000,000 article. A. Pages 662 and 663.

Q. Who collated and obtained the facts set forth in that number? A. Yes, sir; I wrote the article.

Q. You did? A. Yes, sir.

Q. What did you obtain them from? A. From a tabulated statement published in the Insurance Times, at page 442, for June, 1870, called the financial history of the Mutual Life, and folded up like a map—not in the size of the paper, but folded up as a map, doubled up to go in like a map in a railway guide—and from the Massachusetts Report of the succeeding year; those documents showed the total receipts of the Mutual Life for the twenty-eight years, then, of its existence; the total moneys paid for death claims to policy holders, with all dividends upon them; and the difference between these sums amounts to \$11,113,239; it is a mere matter of calculation of plain figures from the statements; Mr. English never saw this until collated by me, and never suggested it; it is my own, entirely.

Q. There is just that difference, is there not? A. Yes, sir, which

I will show to Mr. McCurdy, if he likes; and the paragraph which is said to be libelous, is asking him to explain it; it does not refer to Mr. Winston: "How did the presidents and officials get rid of \$11,113,239, not shown under any heading of disbursements in all the returns of the company for twenty-eight years? We have narrowed the question down to this. What is the answer? Where is the money gone? Who has received it? It must be clearly shown, without any more shuffling of figures, what has become of the entire \$97,468,034, of receipts of the Mutual Life; and how these \$11,113,239 can be accounted for in its disbursements or in its assets. Did the company lose this sum by bad investments? If so, when and how? Messrs. Winston and McCurdy"—the present officers—"will require to clearly and satisfactorily account for this discrepancy of \$11,113, 239." It is merely put as a discrepancy in the figures, for which the present gentlemen ought to be able to account. Mr. Sewell knows it is not a libel perfectly well, and he would not argue the question on the other side, in a court, with me, I know.

By Mr. BLESSING :

Q. Where did you get the statement from, as published at that time? A. From their own published statements, collated for twenty-seven years into a document folded as a map; and then from their sworn statement in the Massachusetts Report of the succeeding year; on this question, I can produce the whole documents to the committee, if they wish it.

By Mr. DARLINGTON :

Q. Have you that tabulated statement? A. Yes, sir; it is bound up in the volume for 1870, page 442; the figures are exact; you would not get more from the documents; I dare say Mr. McCurdy could explain the thing in an hour's time, if he went into the figures; that is all I asked him to do in the article; he could have done it the next month if he chose.

Cross-examined by Mr. SEWELL :

Q. Have you ever been connected with a mutual life insurance company? A. Yes, sir.

Q. What one? A. The Whittington Life Insurance Company.

Q. Where? A. Of London.

Q. How long were you there? A. Six or seven years; I was manager of the business in Ireland.

Q. Have you had any special mathematical training? A. Yes, sir.

Q. Do you consider yourself an expert in life insurance affairs? A. I do.

Q. As such an expert do you now testify to the committee that the accounts of the company, that you have spoken of, do show a deficit unaccounted for of that \$11,000,000? A. I do; I think it could be explained; I don't say that they are not explainable; but they are not explained in the accounts.

Q. Don't you know that the accounts have the explanation upon their face? A. No, sir; I don't think they do; not the three different accounts that are set forth in the article.

Q. Where did you get those accounts? A. One is the account bound up as a sheet, entitled "The financial history of the Mutual Life from its commencement until Jannary, 1870;" and is bound up in the June number, page 442, of the Insurance Times.

Q. Published by Mr. English? A. Yes, sir; it is collated by the insurance company, evidently; Stephen English could not get that without the assistance of Mr. McCurdy.

Q. *This* statement, in my hand, shows that the receipts of the company for twenty-seven years were \$105,317,038.03? A. Yes, that is just the difference added to *this*, of the next two years' business.

Q. Does that statement contain that? A. No, because you have two years' business added; *this* statement ends in 1871.

Q. This is the same, with the difference of the two years' business? A. It is the same, with that difference.

Q. The disbursements in this statement show \$56,052,466.86? A. I dare say that *that* was published as an answer to this article; but it did not account separately for the \$11,000,000 as it should have done, if it had been wisely drawn up; if I had drawn that up I would have explained the \$11,000,000.

Q. How are they explainable? A. I think they are explainable; if I got at the books I dare say I could find it out.

Q. Don't you know, from the published documents from which you collated the article, what the item is that is omitted there. A. I suspect, myself, that a large amount of money paid as dividends and transferred in that kind of muddle and bungle of entering as cash, or in some other way, is omitted; and it is that confusion of two entries like that that has made the \$11,000,000; if it was properly found out every cent of it would be accounted for, I dare say.

Q. You knew that when you wrote that article? A. I suspected that, but it was not my business to find it out for them.

Q. Was it not your business, as a fair journalist, to state the facts? A. So I did; I believe I said it was a discrepancy; I would have been glad if they had explained it the next month; and so would Mr. English.

Q. Did you write any more articles that contained libels? A. No others that contained libels are mine.

Q. How long have you been connected with the Insurance Times? A. Since February, 1872.

Q. You were not connected with it when it was lauding the company? A. No, sir, I was not; I would not land a company that has one dollar and eight cents of assets on the dollar of liabilities under any circumstances; that is, its assets for its liabilities; and I would not put my pen upon the paper to land a company that had only one dollar and eight cents of assets on the dollar to meet its liabilities; I would not insure in a company with only one dollar and eight cents assets to meet its liabilities.

Q. Isn't that a fair amount for a man in business? A. Yes, where he knows his liabilities that night; but where your liabilities won't be known for thirty or forty years to come it is too close a margin; and, besides, your assets of one dollar and eight cents are loaned to the extent of thirty-four millions odd on house property, in the State of New York, and within fifty miles of the city of New York; if a conflagration, such as occurred at Chicago or Boston, they would have nothing to meet that liability but the policies of the fire companies, that might themselves be made bankrupt by the conflagration, and could not pay more than twenty-five cents on the dollar.

Q. Don't you know that the company does not loan more than fifty per cent on the value of house property? A. I dare say it does not; but a fire won't respect that half in its depredations.

Q. Would not the site of the building be security for the money so loaned? A. The clearing away of the rubbish after a fire would cost as much as the value of the site in many instances.

Q. Do you submit that as an expert of the value of property in the city of New York? A. No, sir; but it is so in many places.

Q. What places? A. In small towns.

Q. What places? A. I can't tell you.

Q. Do you know of any such loans in America? A. No; but I know that in Europe there is no money loaned by life insurance com-

panies on house property, because it is so risky ; not a cent ; no English or Irish company has a penny loaned on house property, because it is a risk.

Q. Do you know that it is an invariable rule of this company, in loaning money on property out of the city of New York, to lend only fifty per cent of the valuation of the land, leaving out of account entirely the value of the building? A. I think that is a wise thing to do.

Q. Do you know that that is the rule? A. I don't know that, of course ; how would I know that ; I know that money is loaned very riskily on property.

Mr. McCURDY :

That is the rule of the company.

WITNESS—You had better be sworn on that.

Mr. McCURDY :

On all country property—all property outside of cities ; in the cities, of course, the loan is on the value of the lot.

WITNESS—That shows that the company believe that lending on buildings is imprudent.

Q. Your deliberate opinion is, then, that it costs as much to take the rubbish of a burned house from a lot in the city of New York as the lot is worth? A. No, sir ; I didn't say that ; I said in some places.

Q. Do you know of any loans of the Mutual Life Insurance Company upon lots where it would cost as much to clear the lot as the lot is worth? A. I believe the place where I live would cost that much—in Putnam avenue, Brooklyn ; I believe you would have to pay workmen as much to clear the lot, to get at the foundation, as the whole site is worth.

Q. What is the value of the lot? A. I suppose the sites would sell at something like \$300.

Q. Do you know whether the Mutual Life Insurance Company has a loan upon that lot? A. I don't know but that they have on some quite as bad.

Q. What else have you to say? A. They have \$58,000,000 loaned in New York, and within fifty miles, and they must have a fearful lot of bad property ; the very fact of loaning \$58,000,000 inside of that narrow circle is a fearful risk ; the \$58,000,000 ought to be loaned all over the United States, to get good security.

Q. Do you know that the loans of the Mutual Life Insurance Company extend all over the great State of New York, and some of the loans are on property 300 miles away from the city of New York?

A. I suppose they are up at Buffalo and Rochester.

Q. Do you know that a large portion of the loans of the Mutual Life Insurance Company is on farming lands situated in forty counties in the State of New York? A. I should expect that they would have.

Q. What do you mean by saying that it is loaning only within fifty miles of the city of New York? A. They can go only fifty miles outside of the city of New York; if they go into Jersey or Connecticut, they can go only fifty miles.

Q. You are of the opinion that the money of this corporation ought not to be reserved in the State of New York for the benefit of its citizens, but ought to be scattered all over the United States? A. I do, certainly.

Q. That is your opinion? A. That is my opinion; only I thought you didn't want opinions.

JOEL O. STEPHENS, *sworn*.

Examined by Mr. DARLINGTON:

Q. You are the under-sheriff of the city of New York? A. I am.

Q. This defendant, Stephen English, is in your custody? A. He is.

Q. Under what process? A. Under an order of arrest issued out of the Supreme Court of the State of New York, by Judge Barrett, for \$20,000; and also under an order of arrest granted by Judge Barbour of the Superior Court for the same amount.

Q. Will you be kind enough to look and give me the dates of these orders? A. The arrest was on 23d of January; the orders must have been dated prior to that.

Mr. DARLINGTON:

The order of arrest in the Supreme Court has no date, but it is evidently the 13th, as you can see by the affidavit of the same date.

Q. The sheriff's books show the date, do they not? A. Yes; I merely took this date from the jail book—the date of the arrest.

Mr. DARLINGTON:

The two orders of arrest, which I present to the witness, then, are admitted to be issued on the 13th of January, 1873.

Q. Prior to that, you had arrested the defendant in the suit of George T. Hope against Stephen English? A. I presume so, from these papers, although I did not refer to anything except our jail book; I supposed that was all your subpoena called for.

Q. He is not held under any other process? A. This is all we hold him under, these two orders of arrest, in which Frederick S. Winston is plaintiff in each case.

Mr. DARLINGTON :

This copy of the bail bond was made by myself—

Mr. SEWELL :

I admit that he is out on bail on the suit in which George T. Hope is plaintiff and Stephen English is defendant, and that Mr. Freeman and Mr. Stanton are his bail; and that he has indemnified those bail by a deposit in their hands of a like amount of bonds.

Cross-examination by Mr. SEWELL :

Q. You have no personal knowledge of the incidents connected with Mr. English's arrest, have you? A. No, sir.

Q. You know nothing of how long the deputy was looking for him? A. I have a general knowledge that there was a good deal of trouble to find him,—not of my own knowledge; I never attend to such matters.

Q. We have had something here about what people have heard; now what did your deputy tell you about it? A. He told me I think that he had gone to New Jersey and that he had a great deal of difficulty in getting him, and only by some *finesse* on the part of some parties was he able to procure him; I think that the proposition was made to him that he could either go to jail or to State prison in New Jersey, or the debtor's jail in New York; this is what he told me; I know nothing about it personally.

Q. How long between the time when the process was received in your hands and the time when he was made prisoner? A. About ten days.

By Mr. BLESSING :

Q. This is only hearsay, and you do not know anything about it? A. Nothing, except the fact that we have got him in custody; that is all I know about it.

Mr. SEWELL :

Before the committee leave here I should like to have an opportunity to cross-examine Mr. English; the committee will remember that upon the day we were first notified of this investigation we were here; and, through a mistake of a clerk, we were waiting here while you were taking the examination.

Mr. ATWOOD :

If not at this time it can be done at some other time.

Mr. ABBOTT :

We will have another meeting here probably.

Adjourned to meet at Albany in the committee room.

ALBANY, N. Y., *May 1st*, 1873.

Before the Assembly Committee on Grievances.

Present—Hons. C. W. Herrick, chairman; Frank Abbott, A. Blessing, A. S. Whalen, N. A. White.

J. Thomas Davis, Esq., clerk.

Charles P. Young, stenographer.

O. T. Atwood, Esq., counsel to committee.

Thos. Darlington, Esq., counsel for Mr. English.

HENRY GALLIEN, *sworn*.

Examined by Mr. DARLINGTON:

Q. What is your business? A. I am the Second Deputy Comptroller.

Q. And have been in that office how long? A. Since the 1st of January, 1860; that is, in the Comptroller's office, but not in that position.

Mr. DARLINGTON :

I read chapter 224 of the Session Laws of 1863: "An act providing additional means of relief for the sick and wounded soldiers of the State of New York, in the United States service. Passed March 24th, 1863; three-fifths being present.

"SECTION 1. The Governor of this State is hereby authorized to appoint suitable persons as agents of the State, whose duty it shall be to provide additional means of relief for the sick, wounded, fur-

loughed and discharged soldiers of this State, who shall have been, are now, or may hereafter be engaged in the United States service, while being transported to and from their homes; to ascertain the names and condition of all patients belonging to this State, in the United States hospitals, within such limits as the Governor may designate; to keep a register of the same, and to furnish information to all who may inquire concerning them; to facilitate the removal of the bodies of deceased soldiers to the friends of such deceased, when such action is desired, and to perform such other duties for the relief of the sick and wounded soldiers of this State as the Governor may designate and require; to make reports to the Governor of his or their transactions and expenditures, with vouchers duly verified on oath. The compensation of said agents to be fixed by the Governor.

"§ 2. The Governor may appoint such number of surgeons, or other agents, as from time to time may be required, for the care, comfort and removal of the sick and wounded soldiers belonging to the State of New York. The compensation of such agents shall be commensurate with the services rendered, and to be fixed by the Governor.

"§ 3. The sum of two hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated for the purpose of carrying this act into effect, and the same shall be paid out of any moneys in the treasury not otherwise appropriated, to be paid on the order of the Governor and disbursed under his directions, for the purposes aforesaid; the Governor to account to the Comptroller for the money that shall be expended in pursuance of this act.

"§ 4. The Comptroller of this State, on the order of the Governor, is hereby authorized and directed to pay such accounts for services rendered, or disbursements made under this act, as, after being verified on oath, and audited in the same manner as other military accounts, shall be approved by the Governor; and he is further authorized, on the written order of the Governor, to place in the hands of the agents of the State such sums of money as may be required to meet the foregoing requirements, at the discretion of the Governor, first requiring the said agents to give ample security for the proper disbursements of the funds.

"§ 5. This act shall take effect immediately."

Q. Have you the records of the Comptroller's office here? A. In regard to bonds, I have; yes, sir.

Q. Was any bond given by John F. Seymour or Samuel North, under that section? A. There was not.

Q. As I understand you, there was but one bond ever given under this section? A. Yes, sir.

Q. That was for a thousand dollars? A. The advance was for a thousand dollars; I don't know the penalty in the bond; this was the anticipation of an advance which was made to an agent, which was subsequently refunded, and the bond canceled.

Q. No other bond was ever given to the Comptroller of the State, under this section? A. No, sir.

Q. Will you be kind enough to give us the name of the person who gave that bond? A. Yes, sir; the name was Charles E. Stauring.

By Mr. Atwood:

Q. Have you got his residence? A. It is not here; but to the best of my knowledge he was appointed to go to New Orleans; I remember the transaction perfectly well.

By Mr. Darlington:

Q. That was the only bond that you had under this act? A. That was the only bond; indeed we haven't it now, because it was immediately surrendered and canceled.

By Mr. Atwood:

Q. That is the only one ever made or filed? A. Yes, sir.

By Mr. Darlington:

Q. Have you the section of the book which shows the first payment made to Mr. Winston by the Comptroller's office? A. Yes, sir; there was a payment made on the 16th of September, 1864, to Mr. Winston, of \$18,491.86.

Q. That was to repay moneys which he had advanced? A. Yes, sir.

By Mr. Atwood:

Q. How was it paid; was it audited? A. Yes, sir; it came to us audited, in pursuance of that act; I presume audited by the Commander-in-Chief, as all military accounts were paid on his certificate.

By Mr. Darlington:

Q. So far as appears by your books, in June and July the Comptroller of the State was not indebted to any person on this subject; there was then no existing liability? A. No, sir; perhaps I ought

to say in regard to what makes me feel certain in regard to the bonds not ever being filed—we never made any advance to these gentlemen, Mr. North and Mr. Seymour; the accounts were audited, and paid to them, as they were presented, for services and disbursements, theretofore made, from month to month; and I am perfectly sure there was no necessity for the filing of the bond for any acts done during their terms of office.

By Mr. WHALEN:

Q. Was this money paid to Mr. Winston as President of that Mutual Life Insurance Company? A. No, sir; it don't appear to be; it is F. S. Winston, "for moneys advanced by him to agents of the State of New York on drafts, in pursuance of arrangements made by the Governor, under chapter 224 of the Laws of 1863."

By Mr. DARLINGTON:

Q. If they had presented to the Comptroller's office a proper bond for the payment of this money, and the account had been audited, there was always money in the State to pay such? A. Undoubtedly.

By Mr. ATWOOD:

Q. The Comptroller could have furnished this money on proper bonds being furnished? A. Yes, sir; at any time, with the bond being filed.

Testimony all in.

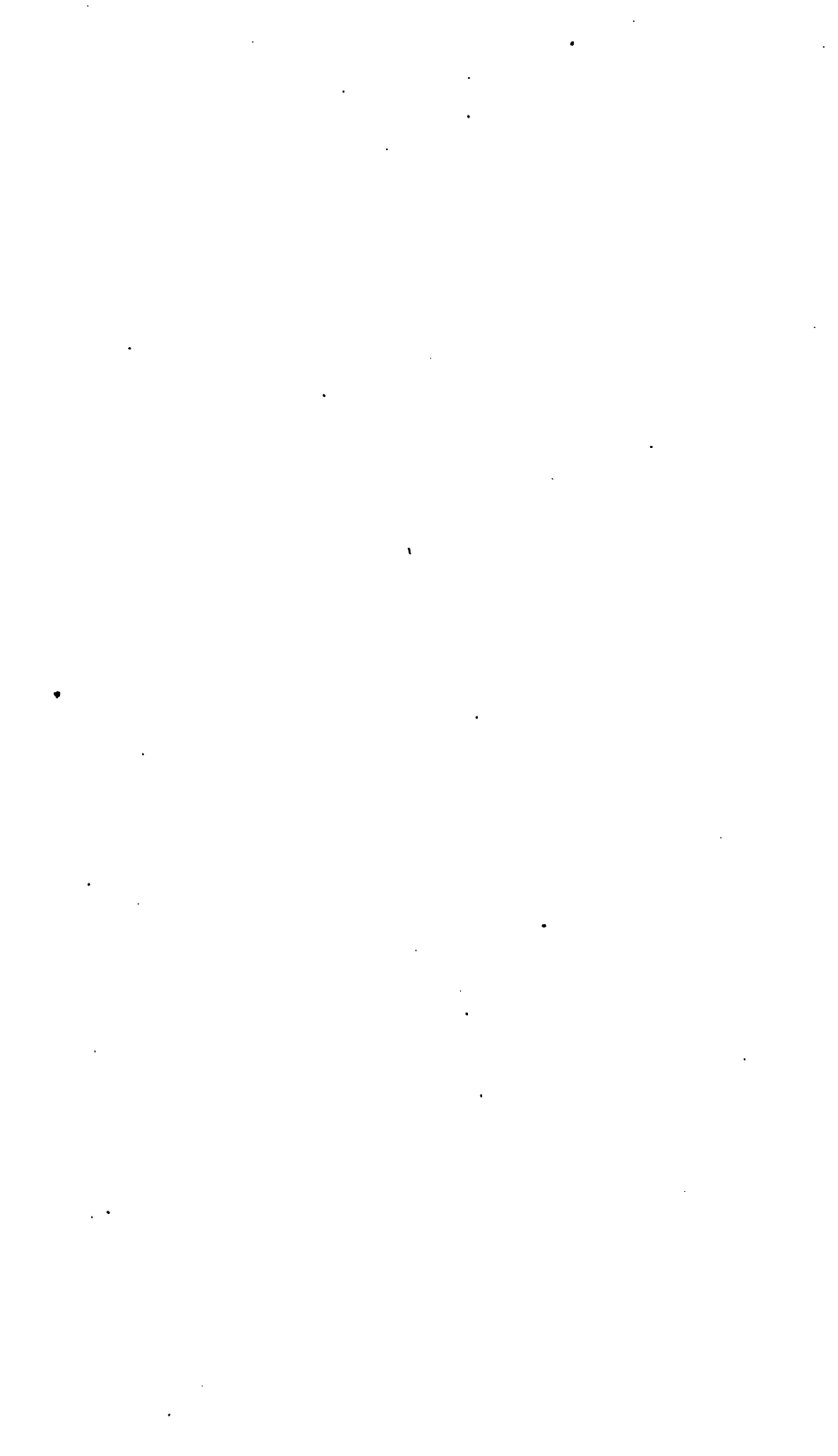
Adjourned, subject to the call of the chairman.

[Assembly No. 169.]

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